Welcome
2013 Arizona Statewide Exercise
Critical Infrastructure Seminar

January 31, 2013

Welcome

Lou Trammell
Director of the Arizona Division of Emergency Management

Administrative

- Emergency Exits
  - Marshaling Areas (north / south)
- Restrooms
- Cafeteria
- Cell Phones
- Smoking Area
- Sign in sheets / correct email addresses

Agenda

- Welcome
- 2013 Arizona Statewide Exercise Scenario Overview
  - Jan Lindner, Arizona Division of Emergency Management
- Power Grids
  - Kendra Cea, Arizona Public Service
- AZWARN
  - Steve Shepard, Metro Water
- Kinder Morgan Pipeline
  - Scott Manley, Kinder Morgan
- Logistical Capabilities Assessment Tool
  - Matt Parks, Arizona Division of Emergency Management
- Intro to Arizona Catastrophic Plan
  - Robert Clyburn, FEMA Region IX

Exercise Overview

Exercise Dates

- The 2013 Arizona SWE will be a two day event
- Nov. 6th is the Functional (FE) / Full Scale (FSE) component of the exercise and will be held during standard business hours
- Nov. 7th will be a 8 hr Tabletop Exercise
- The scenario will be a continuation of the FE/FSE
- There will be a time jump to week 2 of the power outage
- The forum will be a plenary session with breakout groups and then a moderated discussion
- The breakout groups will integrate Critical Sectors, with ESF's and other like organizations

Exercise Dates

- The 2013 Arizona SWE Recovery component will be exercised Nov. 20-21, 2013
- The Recovery exercise will be based upon the outcomes from Nov. 6-7

Power Outage Scenario

PURPOSE

The purpose of the 2013 Arizona SWE is to provide participants with an opportunity to evaluate their current plans, procedures and capabilities for a response to random or complete loss of power for an extended period of time

Power Outage Scenario

- The scenario is being designed to provide for an ultimate stress to all statewide systems and infrastructure
- The artificiality of the exercise will be simulating the month of July 2013. This time of year can put more stress on the electrical grid.
- Severe monsoons storms have moved into Arizona causing lightning strikes and creating Wildland Fires
- These events will then drive power outage and cascading effects throughout the state

Impact to Infrastructure

- Electricity
- Water
- Trash and Sewer
- Natural Gas
- Gasoline
- Transportation
- Health and Safety (to include 1st Responders
- Pharmacies
  - Pharmaceuticals
- Hospitals /Hospital Supplies
- Manufacturing
- Communications
  - Internet
  - Emergency Services
  - Utility Industry Communications
  - Public and Private Sector Communications
- Banking
- Grocery Stores
- Retail Stores
- Nitrogen Gaseous Pipeline
- Gas and Chemicals
- Postal and Shipping

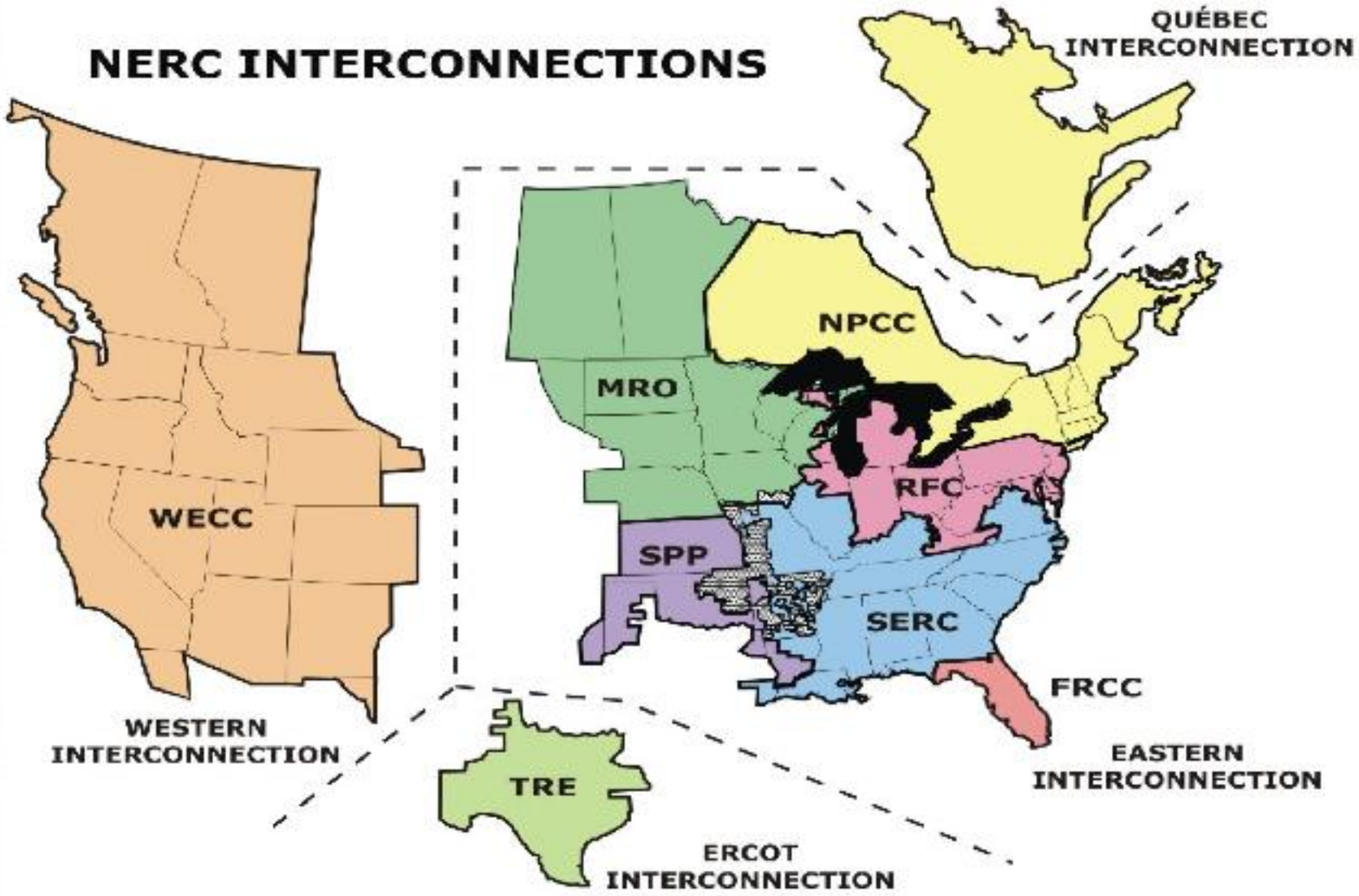
Keeping the Lights On
Seasonal & Emergency Preparedness

January 31, 2013

2013 Statewide Exercise Critical Infrastructure Seminar

Presented by Kendra Cea, APS

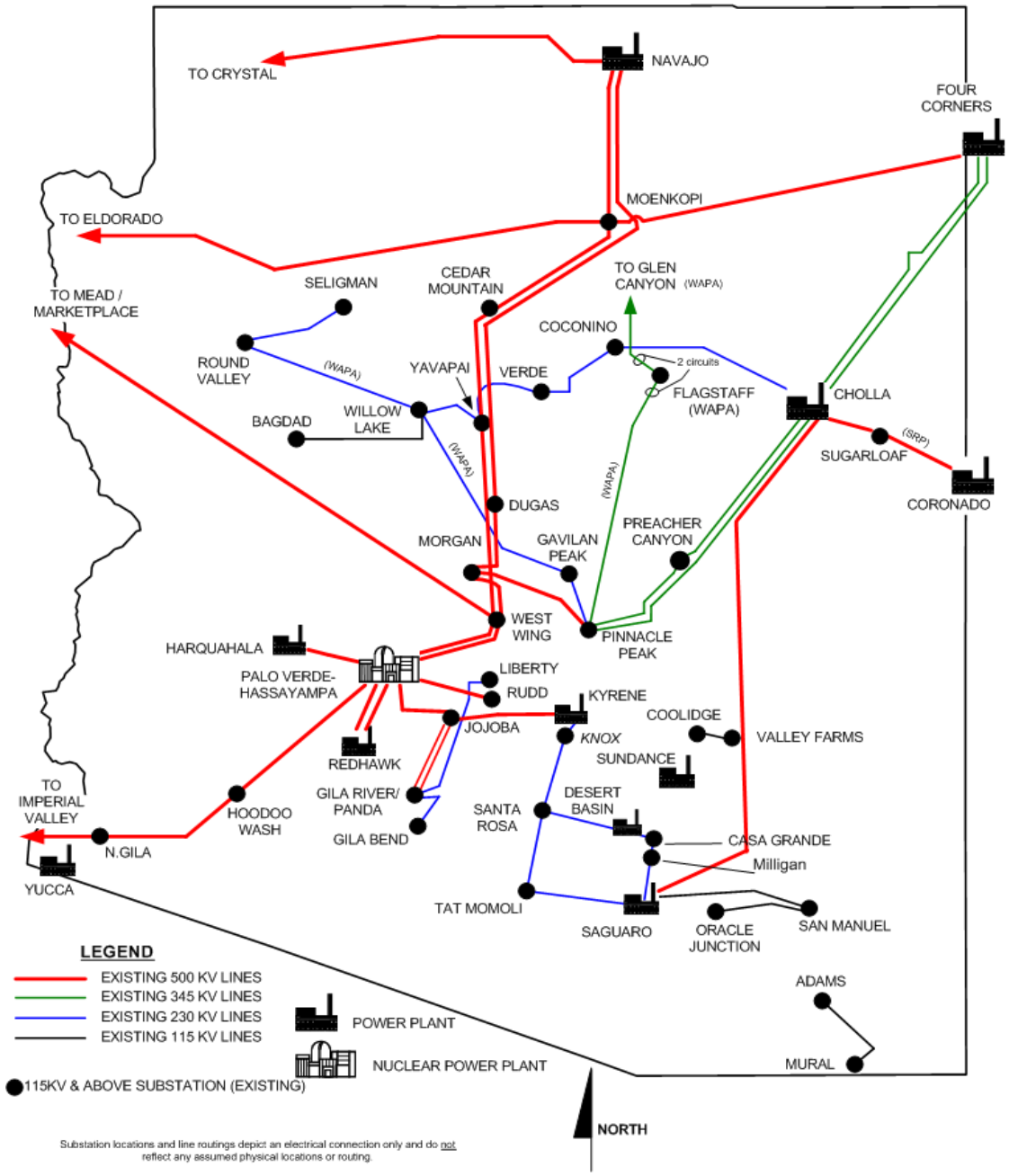
Electric Grid



Electric Grid (cont)

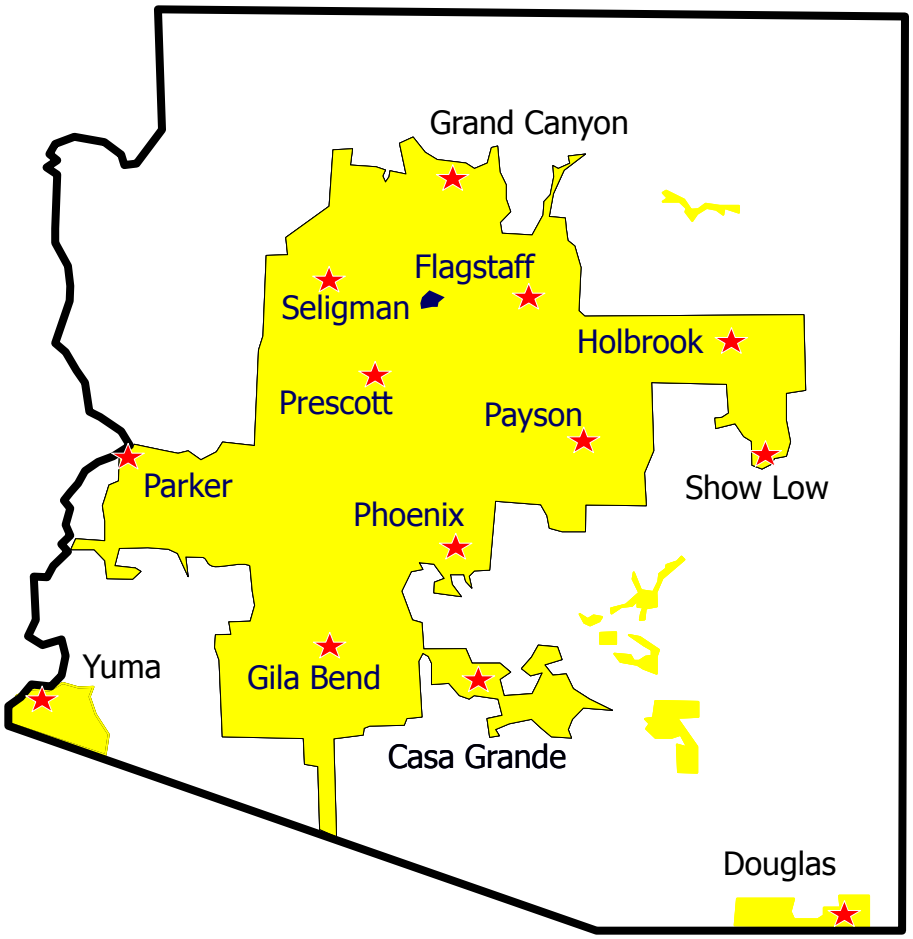
- Western Interconnection operates as one big machine
- All reliability entities must operate their system to maintain the reliability of the machine
- Failure to do so can result in cascading outages
- Significant economic impacts to State of AZ if cascading outage occurs

The Arizona Electric "Grid"



APS Service Area

- 11 counties
- 35,000 square miles
- 1.1 million customers
- 32 customers/sq. mi.
- 29,000 distribution line miles
- 5,000 transmission line miles
- 54 generation units

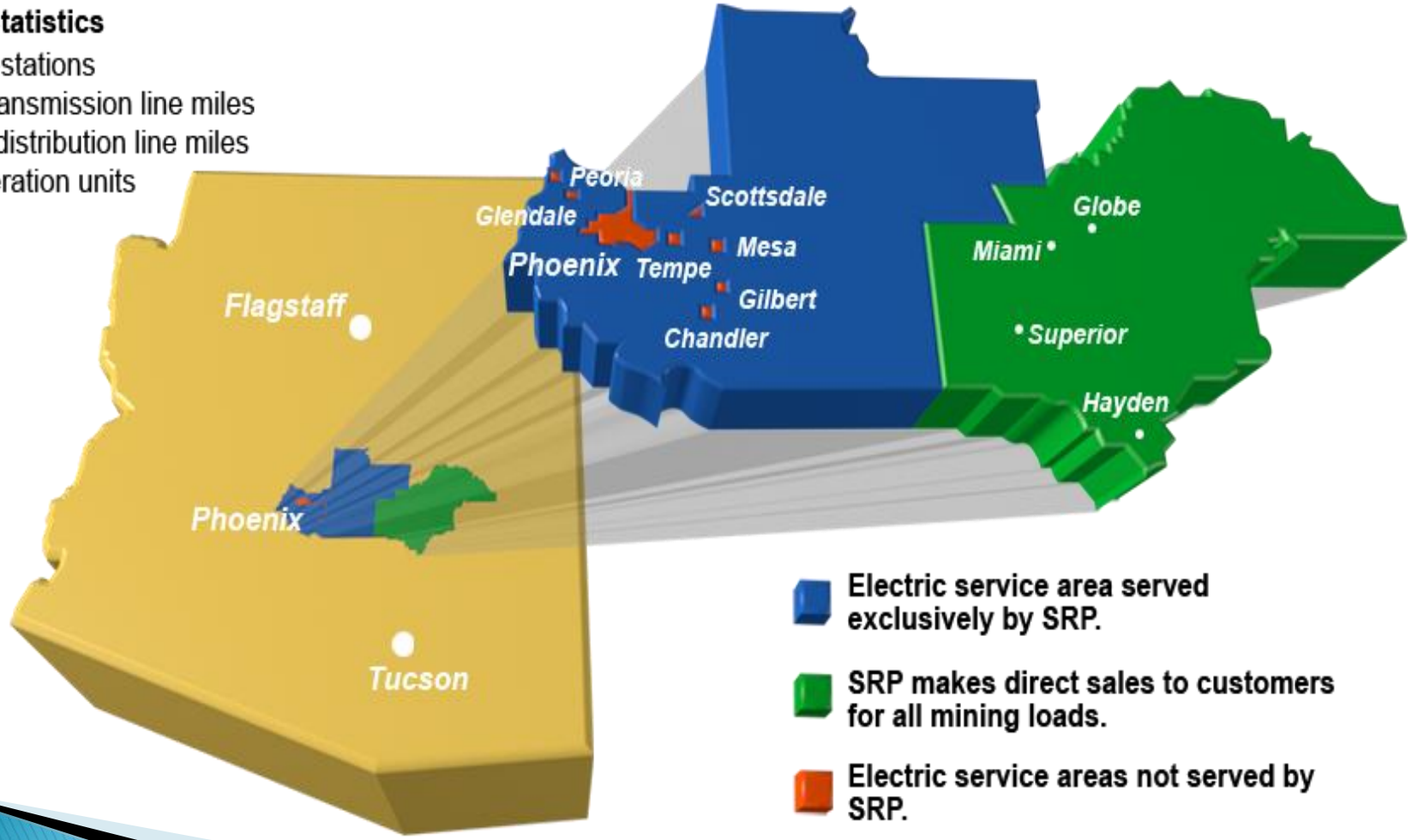


SRP's Electric Service Area

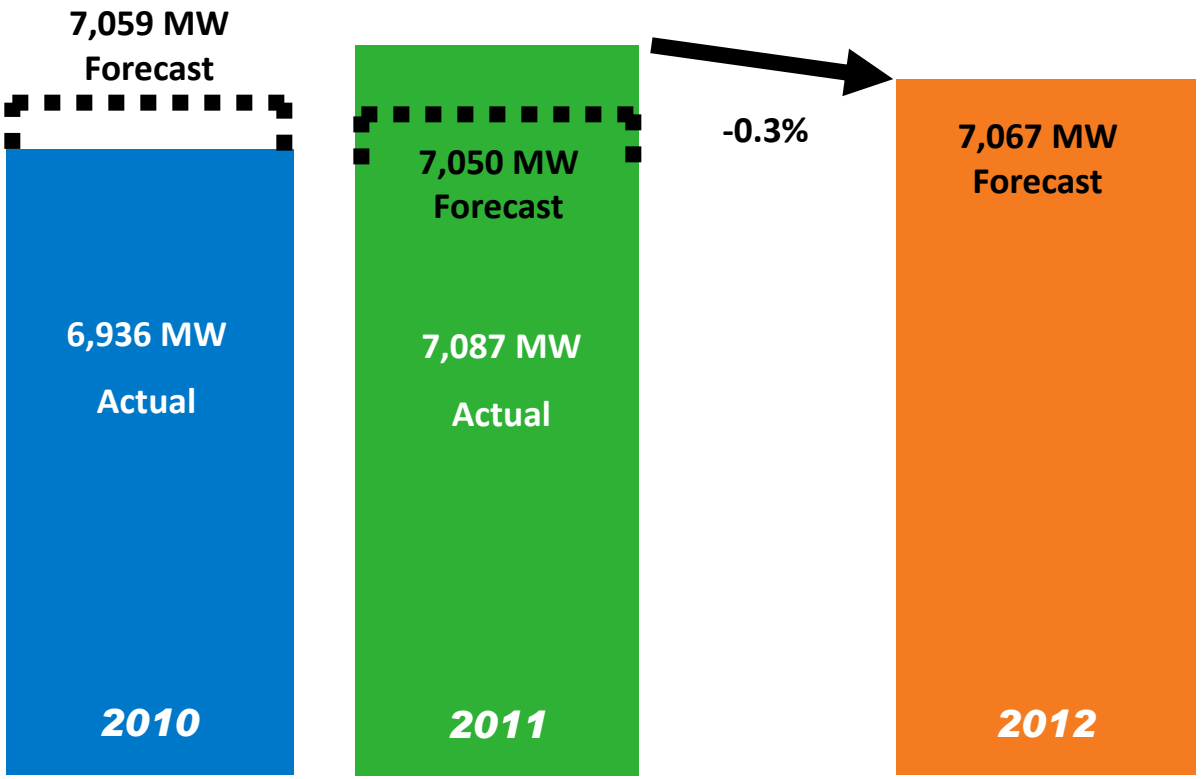
The Salt River Project Agricultural Improvement and Power District provides electricity to 950,000 power users in a 2,900 square-mile service area in parts of three counties -- Maricopa, Gila and Pinal

System Statistics

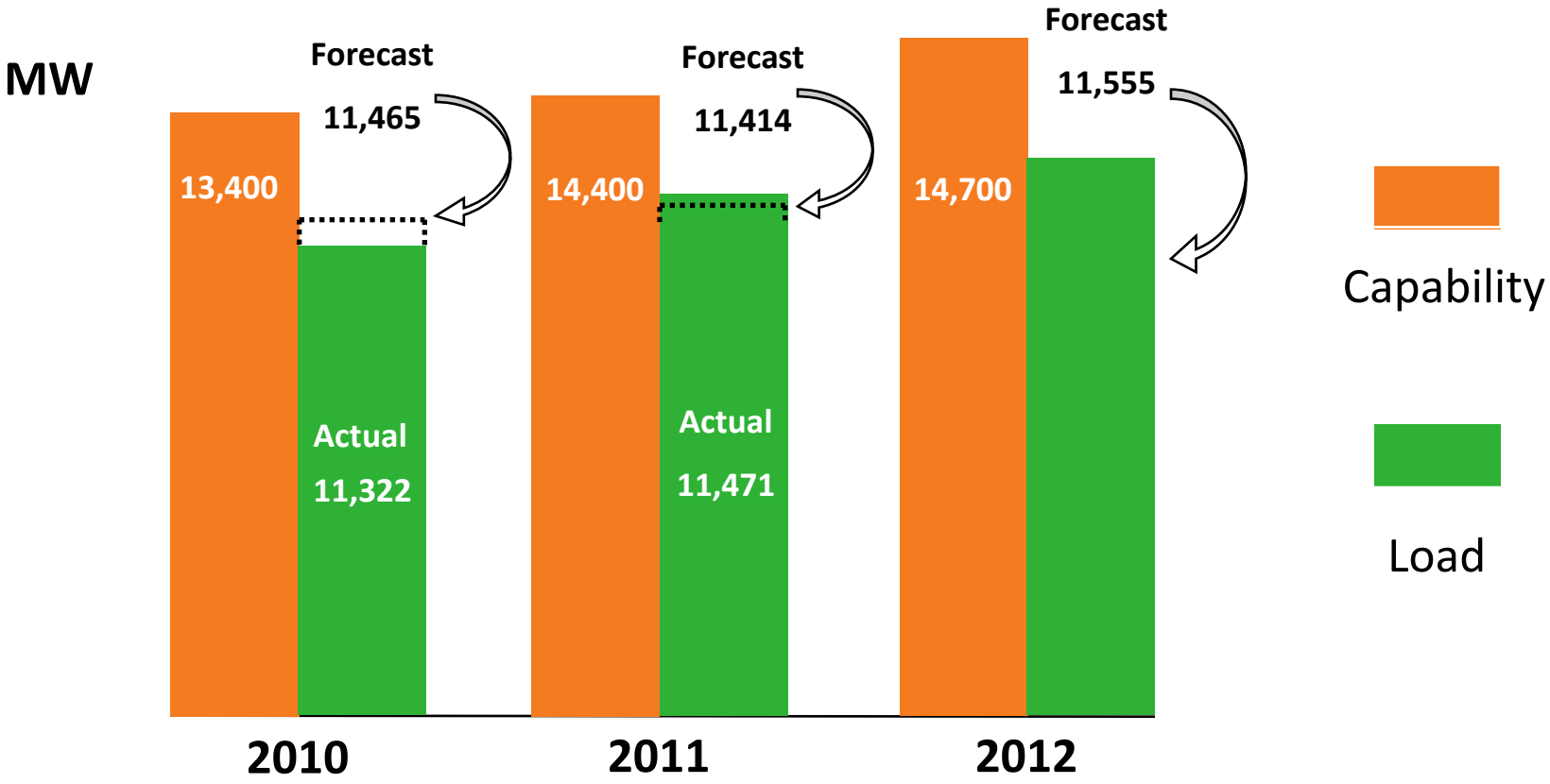
- 299 substations
- 3,072 transmission line miles
- 19,005 distribution line miles
- 44 generation units



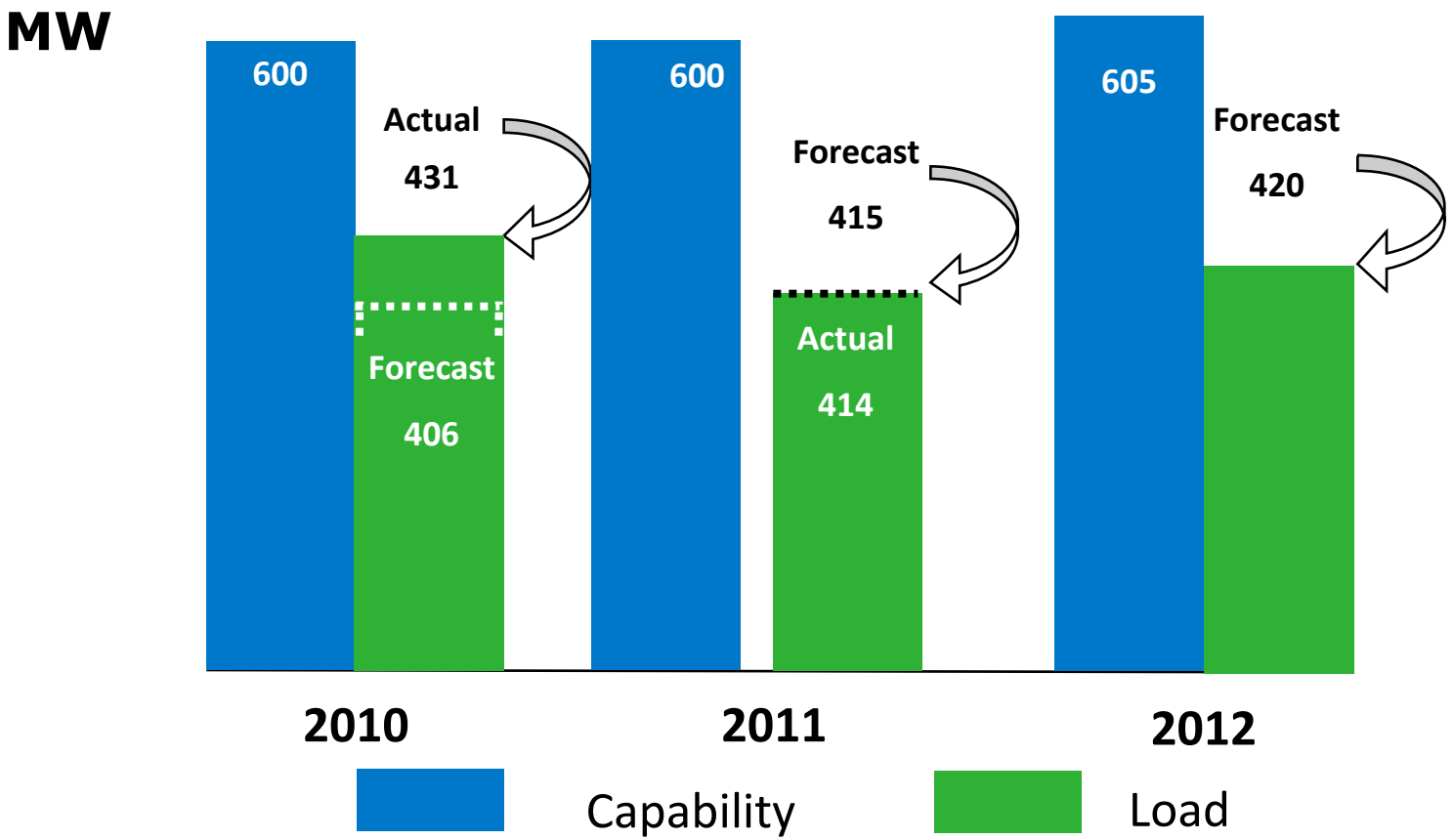
APS System Peak Loads



APS/SRP Maximum Load Serving Capability Metro Phoenix Area



Yuma Area Maximum Load Serving Capability

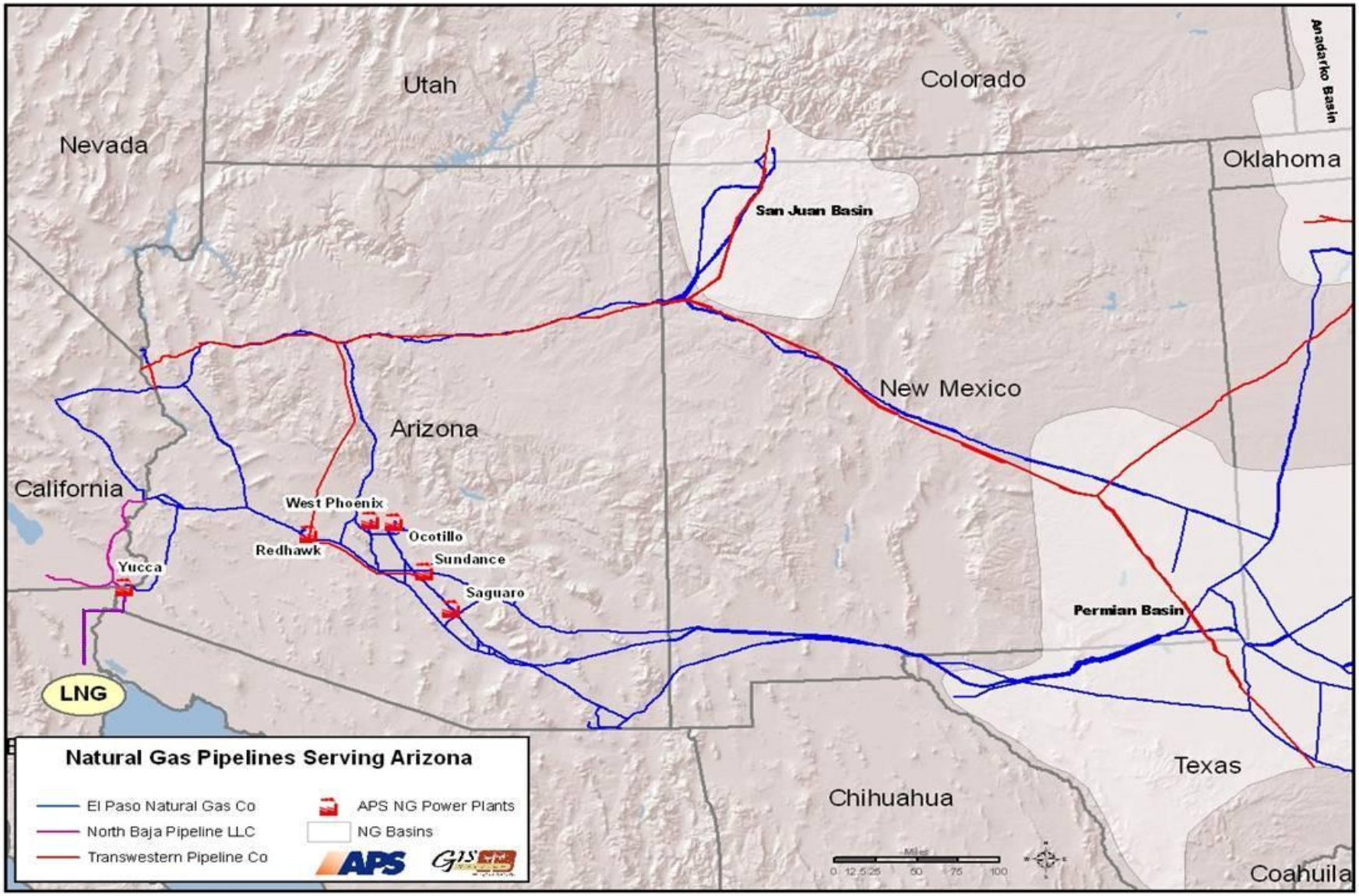


Curtailment Planning

Should a Bulk Power Supply Emergency, Transmission Emergency or a Fuel Shortage seem imminent, the following steps shall be implemented as appropriate:

- Reschedule maintenance
- Coordinate with other utilities
- Utilize stand-by generation units
- Reduce system voltage
- Invoke emergency & short-term contracts
- Seek voluntary conservation
- If insufficient resources are available – rotating outages of 30-60 minutes in duration

Southwest Natural Gas Pipelines



Planning & Coordination are Critical

- Equipment failure & related incidents
- Wildfires threaten electric facilities
- Weather related outages, such as monsoon storms

Summer Storms

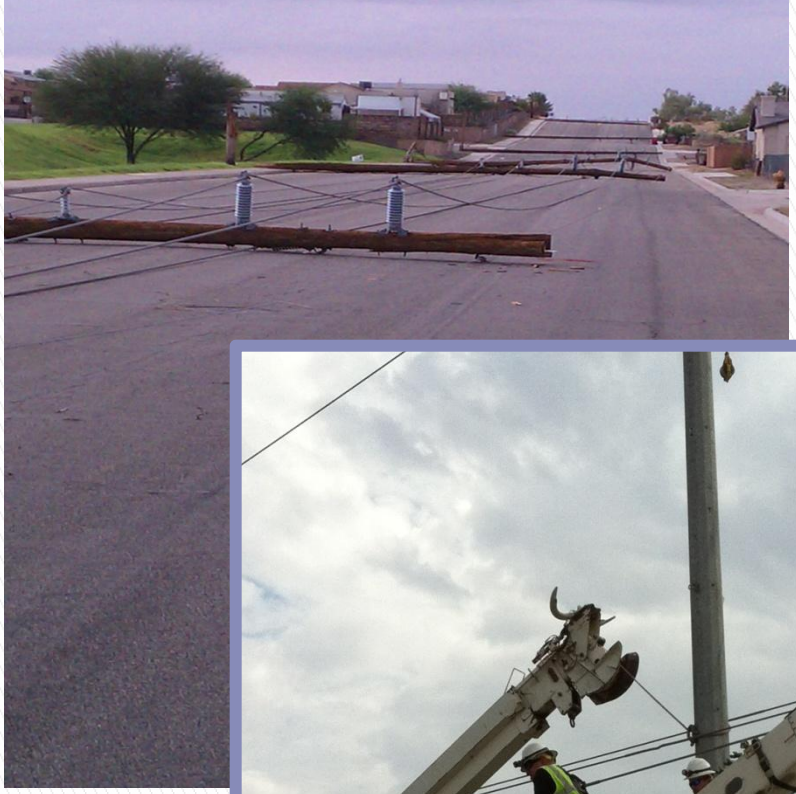

SPEED LIMIT
25
SPEED LIMIT
25

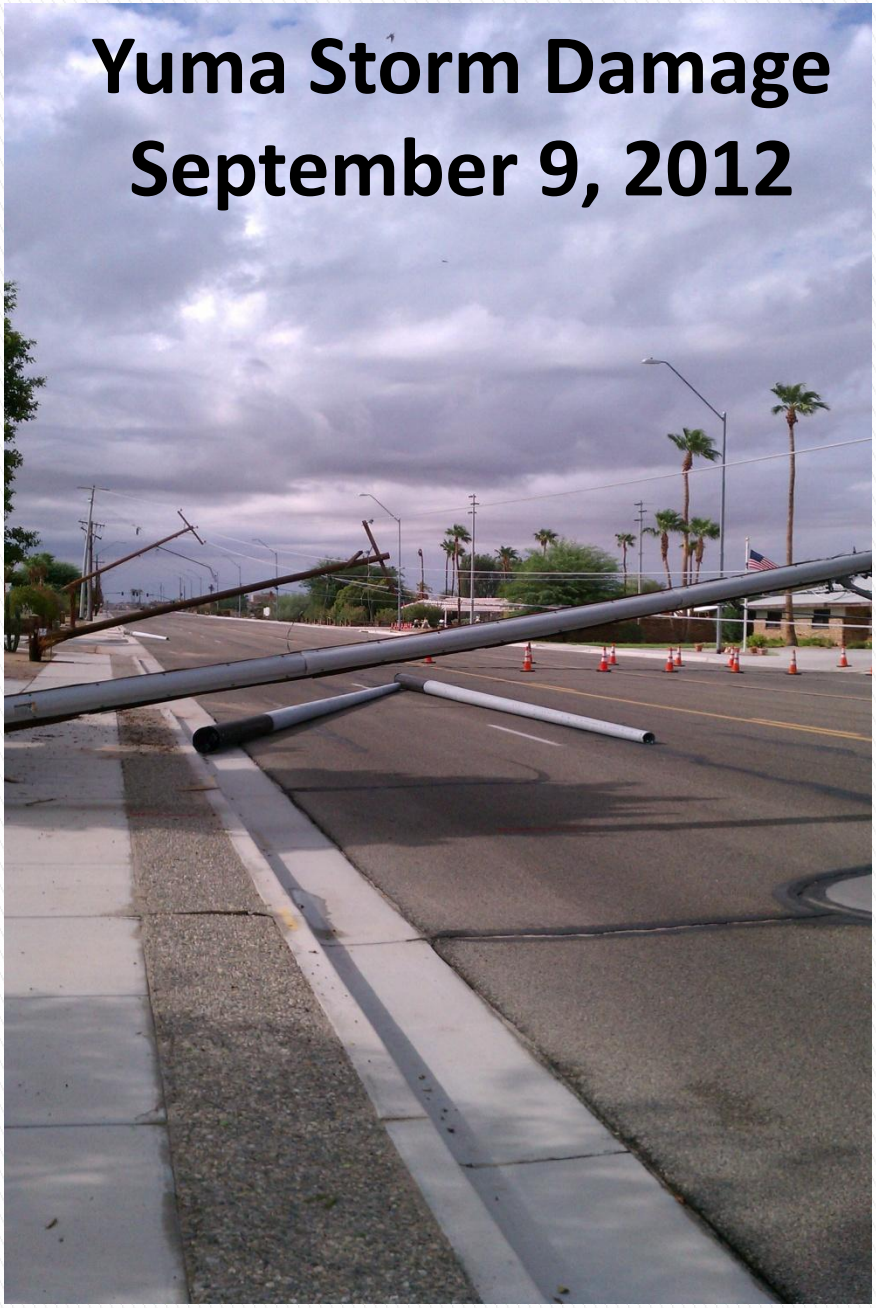
2008 Labor Day Storms – APS statistics

- Storms resulted in outages impacting approximately 90,000 customers
- APS Call Center handled 47,609 customer calls on August 29th alone – a single day record
- Over 2600 trouble orders were generated and needed to be responded to
- 138 locations where line crews were required to restore service


Yuma Storm Damage
September 9, 2012
FOR RENT

Yuma Storm Damage
September 9, 2012





Substation Fires

Westwing 500kV Transformers

Ownership

APS – 28.5%

SRP – 44.2%

WAPA – 27.3%

July 4, 2004 at 6:59 pm

Fire at Westwing Substation in 500/230kV transformer.

Five APS 500/230kV transformers damaged and/or destroyed.

Westwing Fire Statistics

Before the Westwing Fire

- Metro Phoenix area capacity – 11,800 MW
- Projected summer load–10,300 MW
- Metro Phoenix area load – 8,000+ MW

Immediately After the Fire

- Metro Phoenix area capacity – 8,300 MW
- Metro Phoenix area load – 8,000+ MW

Within a few days of the Fire

- Metro Phoenix area capacity – 9,300 MW
- Metro Phoenix area load – 8,900+ MW

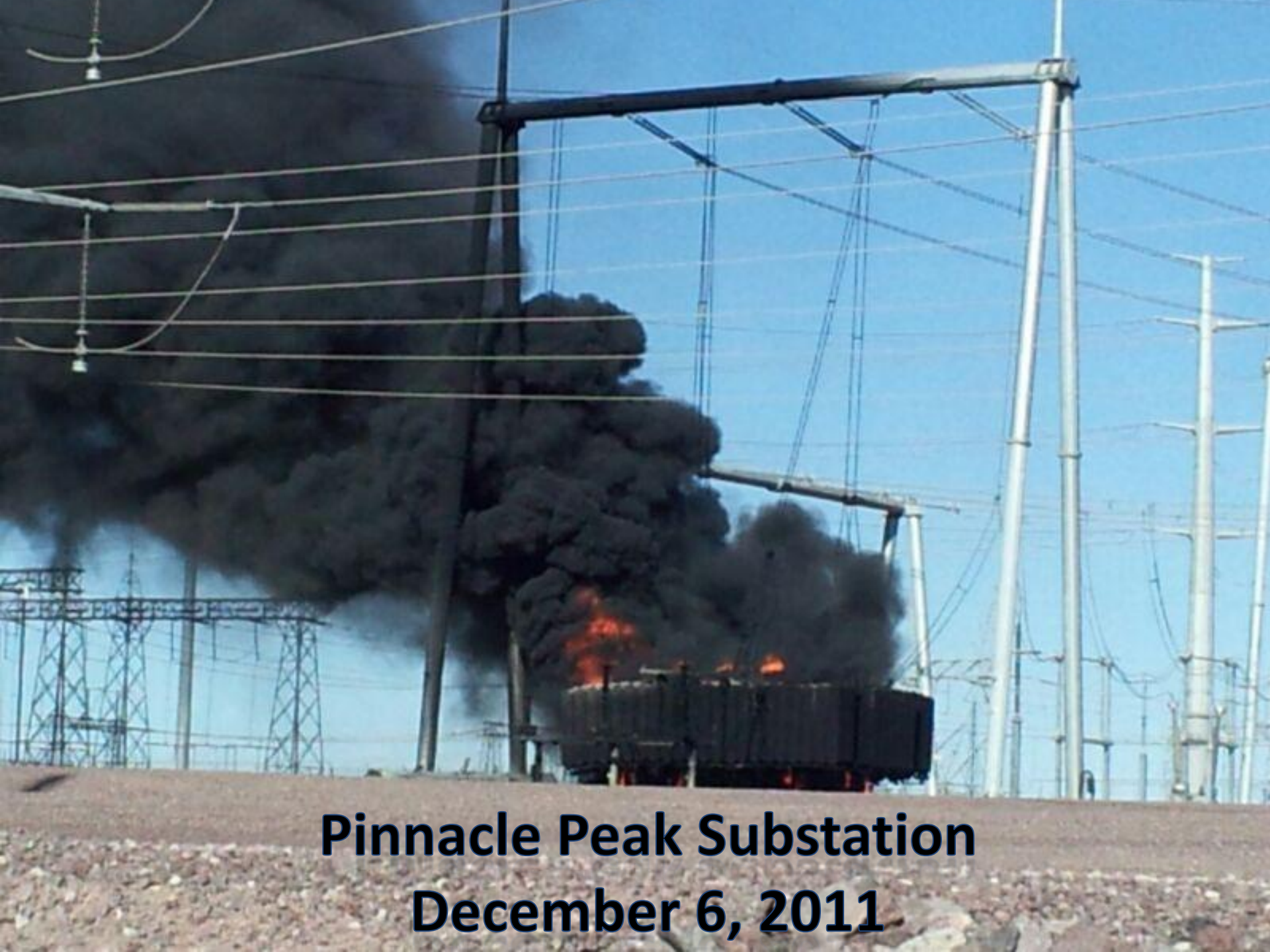
Approx One month later on August 9th

- Metro Phoenix area capacity – 10,800 MW
- Metro Phoenix area load–8,900 to 9,200 MW

Westwing Statistics, con't

Incident Response

- No customers were interrupted
- Increased use of Metro Phoenix area
- APS & SRP implemented voluntary conservation plan
- Worked around the clock to repair overhead structures, cabling and control wiring
- Transformer bank restored by July 8th
- Coordination with Emergency Management officials and Central Arizona Life Safety System Response Council



Pinnacle Peak Substation
December 6, 2011

Vegetation Management


345 kV Transmission
Cholla to Pinnacle Peak
8 11:00 AM

State Wide Operations Coordination

- Procedures developed by APS/SRP/TEP/WAPA
- Starting May 15thof each year -each Monday, or more often -as needed
- APS/SRP/TEP/WAPA coordinated Operations Conference Call
- Wild fire Command Center participation

Emergency Preparedness

- Business Continuity Plans updated and exercised
- Incident Command Training for management & utility first responders
- Emergency Operations Training
- General business planning
  - Curtailment Plan annual filing
  - ECC Disaster Recovery Planning
  - Essential Resources tested to meet Regulatory Requirements
  - Public / Private Partnerships

Emergency Equipment

- Mobile Substations/Transformers
- Emergency Towers
- Mobile Command Centers
- Generators

Residential Customer Outreach

- **Coordination with Emergency Management and local/government public safety officials**
- **Dry ice and/or bagged “wet” ice for customers experiencing extended outages**
- **Emergency shelters, often “cooling” shelters – managed by emergency mgmt professionals**
- **Medical Monitoring for life support customers**


Dry Ice Distribution

We Are Well Prepared!

- **Generation** resources are in place to meet customer load and reserve requirements
- **Transmission** capacity in place to import remote generation and purchases
- **Distribution** infrastructure improvements on schedule to meet customer needs
- **Plans in-place** to respond to extreme conditions

Steve Shepard

AzWARN Chair

sshepard@metrowater.com

(520) 209-2838

DISCUSSION

- What is WARN
- Benefits of a WARN Program
- Why Mutual Aid for Water and Wastewater
- National WARN
- AzWARN Milestones and Status

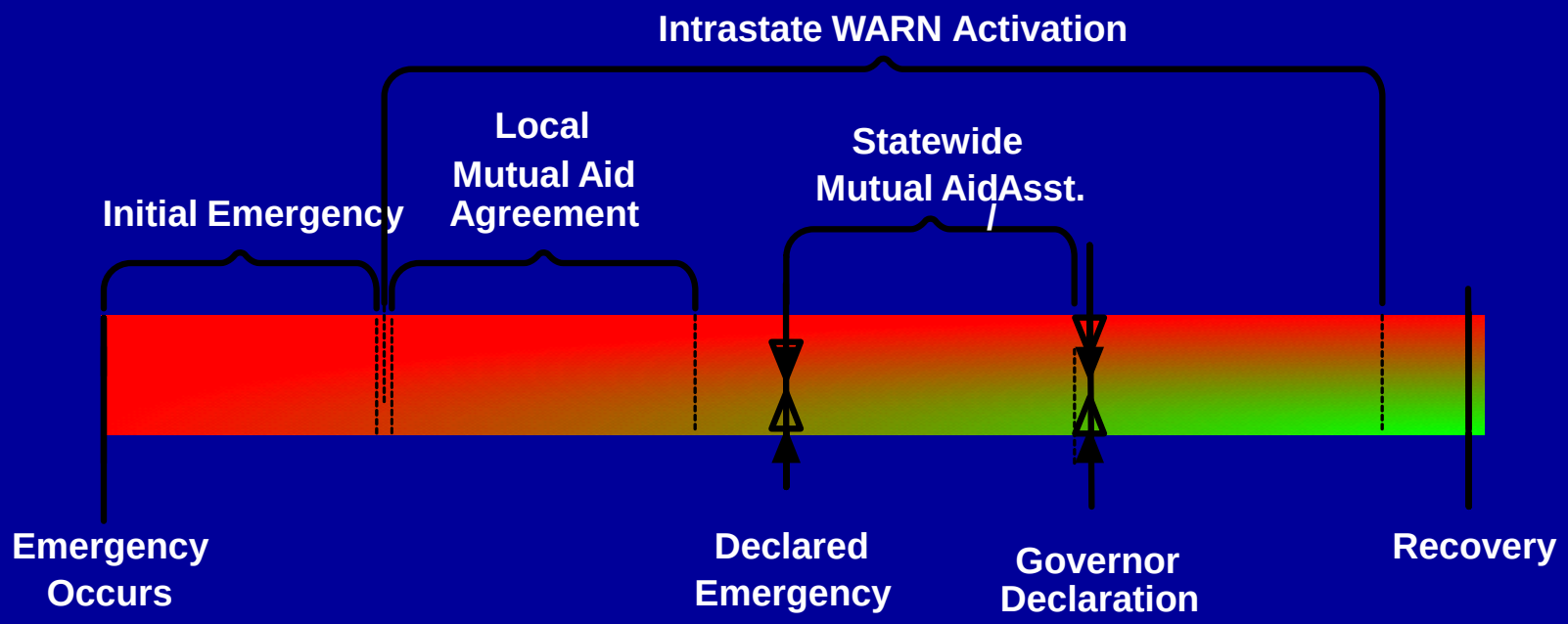
What is WARN?

- Water / Wastewater Agency Response Network
- Not a Corporation or a Governmental Unit
- Participation and Response are Voluntary
- Utilities Organized within a State by Mutual Aid Agreements
- Network of Utilities Helping Utilities
- United by a Common Goal
- Share Common Issues
  - Natural Disasters
  - Human Caused Disaster
  - System Failures
  - Unexpected

Benefits of WARN

- Rapid Assistance
- Similar Knowledge Base
- Access to Specialized Resources
  - EPA Emergency Response Lab Network
- Certified Personnel
- Similar Equipment
- Common Materials
- Establishes Emergency Contacts
- Training, Exercises, Networking
- Procedures Established in Advance

Rapid Response



Florida Rapid Assistance (Florida WARN Provides Assistance in Mississippi mobilized in 3 days)

flaWARN Florida's Water/Wastewater Agency Response Network

Challenges of Restoring Service

Specialized Operations

systems and instrumentation

WATER & WASTEWATER MUTUAL AID & ASSISTANCE RESOURCE TYPING MANUAL

April 2008

American Water Works Association

The Authoritative Resource on Safe Water℠

RESOURCE: WASTEWATER LIFT AND PUMP STATIONS DAMAGE ASSESSMENT, REPAIR AND START-UP TEAM AWWA April 2008					
Category: Public Works and Engineering (ESF 3) Subcategory: Water and Wastewater Kind: _X_ Team					
Component	**Metric**	**Type I**	**Type II**	**Type III**	**Type IV**
Capability	Degree and type of repair and start-up capability	Screw, submersible, wetwell / drywell and vertical-turbine solids-handling pumps greater than 400 HP	Screw, submersible, wetwell / drywell, vertical-turbine solids-handling pumps and suction-lift pumps 26 – 400 HP	Submersible, suction-lift, grinder, LPP, vacuum and STEP pumps, 25 HP or smaller	Components of Type I – III Teams
Ideal Team Size	Total persons	4	4	2	1-2
Team Composition	Team member capabilities for assessments and repairs indicated	1 Qualified mechanic 1 Qualified electrician 2 Repair technicians (mechanic or electrician serves as team leader)	1 Qualified mechanic 1 Qualified electrician 2 Repair technicians (mechanic or electrician serves as team leader)	1 Qualified mechanic 1 Qualified electrician 2 Repair technicians (mechanic or electrician serves as team leader)	Any portion of other types that can be provided
Vehicles and Heavy Equipment	Number and type of vehicles and heavy equipment	1 or 2 Heavy-duty 4X4 pick-up trucks or equivalent, one with equipment boom 1 30-ton+ crane preferred	1 or 2 Heavy-duty 4X4 pick-up trucks or equivalent, one with equipment boom	1 or 2 Heavy-duty 4X4 pick-up trucks or equivalent, one with equipment boom	Any portion of other types that can be provided
Other Equipment	Other specific equipment	Necessary tools and equipment	Necessary tools and equipment	Necessary tools and equipment	Any portion of other types that can be provided
Materials	As needed for repairs indicated	Necessary materials as indicated	Necessary materials as indicated	Necessary materials as indicated	NA

Comments and Definitions: This team is responsible for the assessment and repair of all types of wastewater lift station and pump facilities, regardless of size, including conveyance facilities, treatment plants and pump stations, excluding structural and similar scale repairs. Requestor should specify types of pump facilities in need of assessment and repair in which expertise is needed, as well as any materials that should be provided by the responder. Major materials provided by requestor or others.

Specific types of pump facilities in need of assessment and repair: _____

Specific materials that should be provided by responders: _____

Specific control systems used: Electronic _____ Pneumatic _____ Hydraulic _____ Facility capacity (MGD): _____

Maximum pump voltages: 4160 _____ 480 _____

AWWA Resource Typing Manual, April 2008

NETWORKING
NETWORKING
NETWORKING

Arizona Utilities

Arizona Emergency Response Agencies (local and state)

Water Sector Stakeholders

Out of State Utilities

EPA

Interstate Training and Exercises

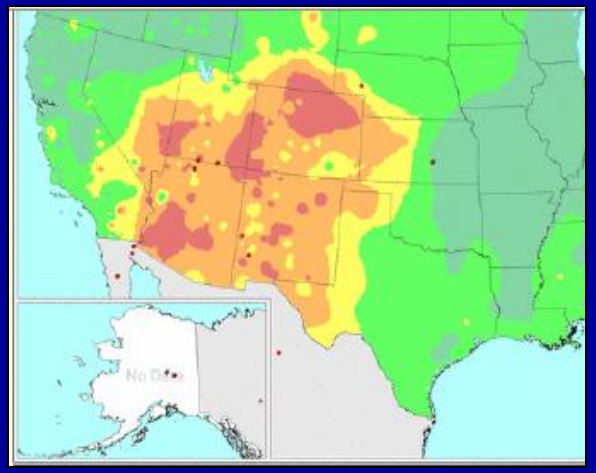
Why Mutual Aid?

- Fires?
- Floods?
- Earthquakes?
- System Failures?
- Unexpected?

Source: Wikimedia

Fires

Aspen Fire, Tucson, 2003



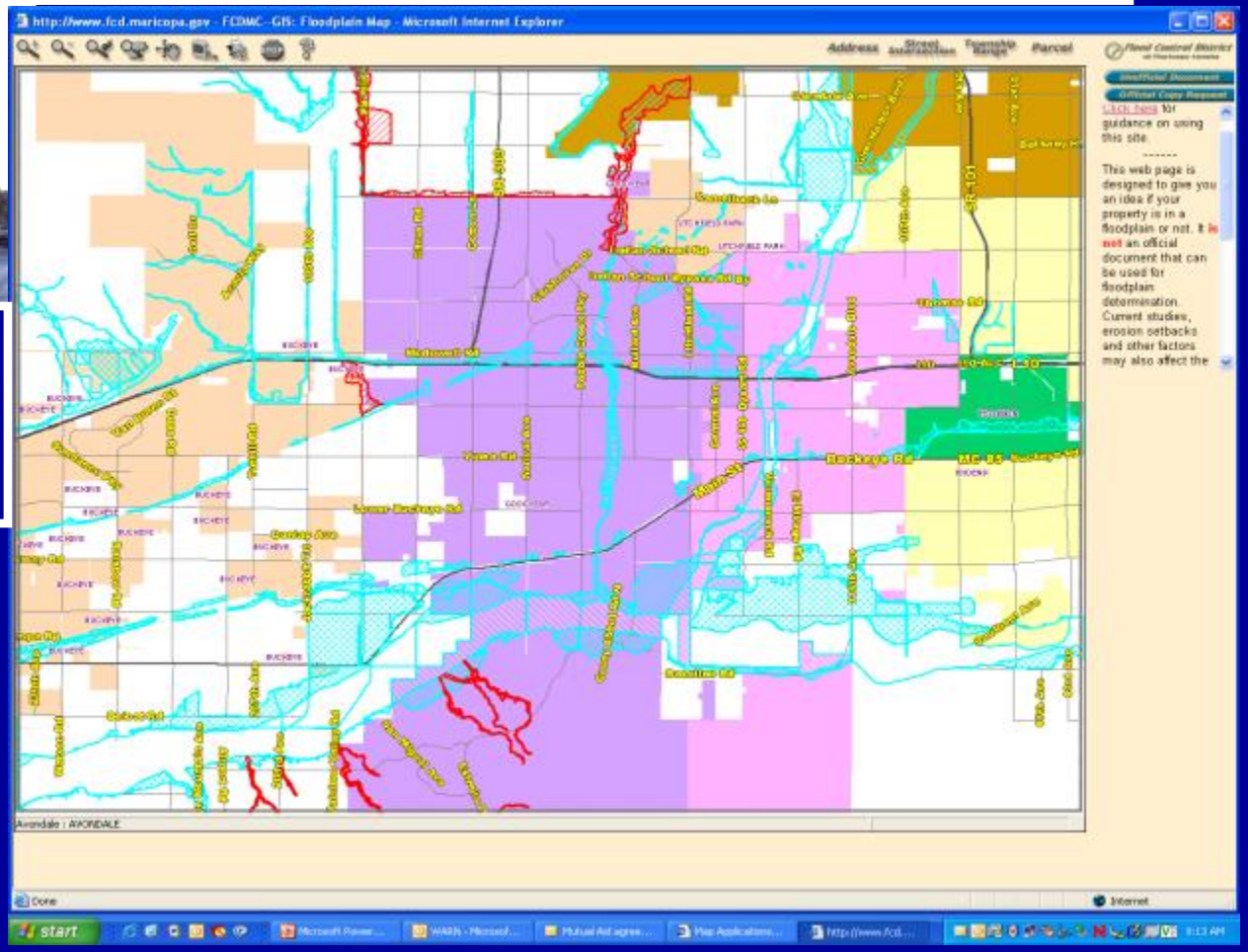
areas in the Southwest

Arizona wild land fires making "most serious in U.S. History" List			
Year	Name	Acres	Description
June 1990	**Dude Fire**	**24,174**	**6 lives lost, 63 homes destroyed**
June 2002	**Rodeo-Chediski**	**462,000**	**426 structures destroyed**
June 2005	**Cave Creek Complex**	**248,310**	**11 structures destroyed**

Floods Happen

Widespread, Damaging Floods in AZ
1978, 1983, 1993, 2006

Pima County 1983 Flood/Erosion Damage

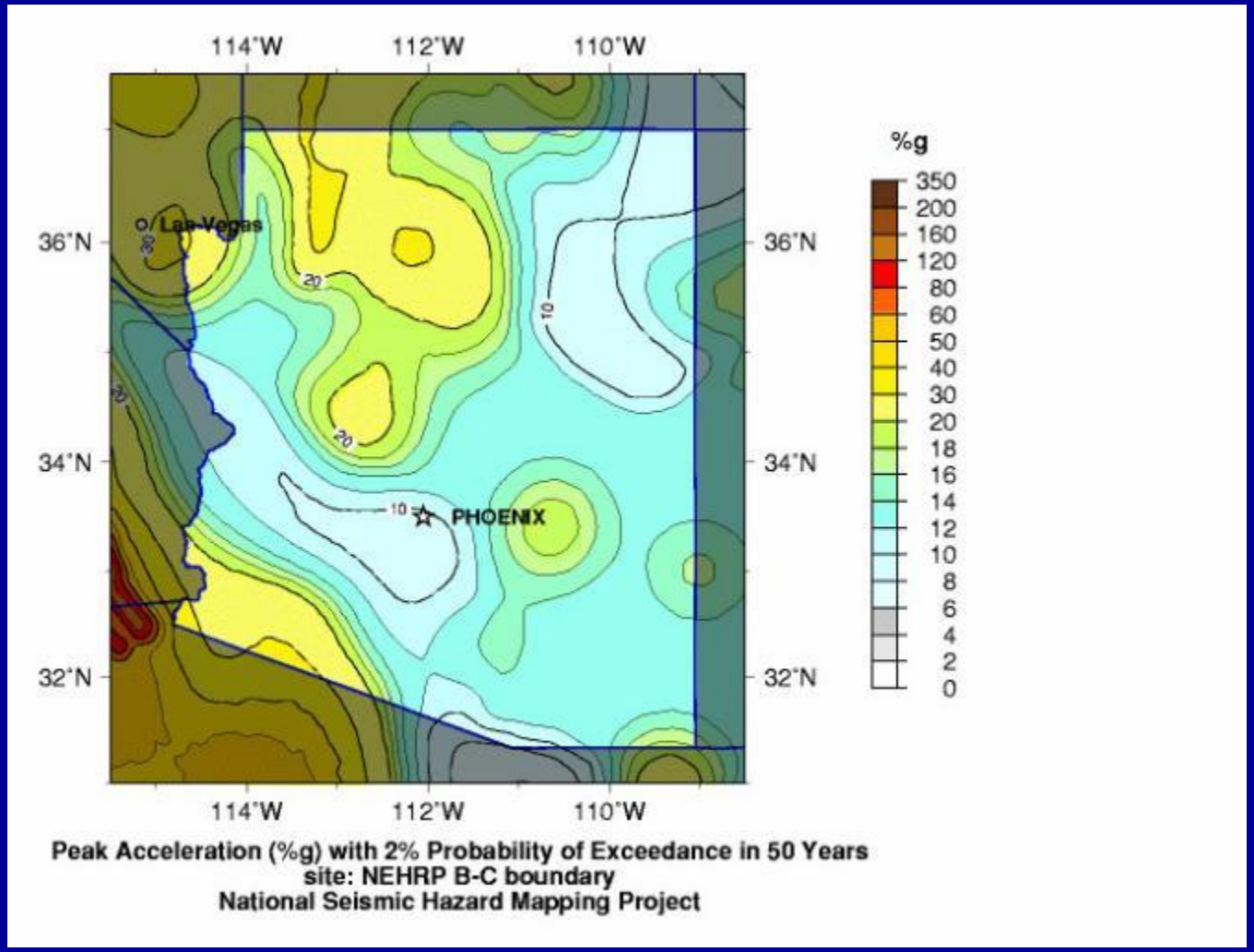


Portion of Maricopa County FEMA Map

File photo, PCDOT

Sabino Canyon Flood, Tucson
July 29, 2006

Earthquakes



Security Concerns

Terror From the Right
Almost 60 terrorist plots uncovered in the U.S.

Disgruntled
Disgruntled
empLoyEES
empLoyEES

Major VandAlism

National Guard troops set to begin border work

Members will extend fences, improve lighting in busy Arizona area

AP Associated Press
Updated: 5:02 a.m. MT June 5, 2006

YUMA, Ariz. – The first National Guard troops sent to assist immigration agents prepared Sunday to work on projects near a fortified stretch of desert along the U.S.-Mexico border.

The 55 Utah National Guard members on Monday plan to begin extending fences, improving gravel roads and working on border lighting near the town of San Luis, Ariz., which is part of the nation's busiest U.S. Border Patrol station.

"They are putting everything together so they can hit the ground running," said Maj. Hank McIntire, a spokesman for the Utah National Guard.

Story continues below ↓

NBC VIDEO

Launch

• **Guard troops arrive**
June 5: The first National Guard troops arrive on the U.S./Mexico border as part of the Bush administration's attempt to enhance border security. NBC's George Lewis reports from Arizona.

Today show

Unexpected Hazards

In Gulfport, Miss., Joe Dobson, left, and Roderick Stapleton attempt to change a valve on a drinking water line that had burst.
AP Photo/Washington Post/MJ Sanchez

System Failures

Pump Failure West View

Pump Failure East View

UNEXPECTED

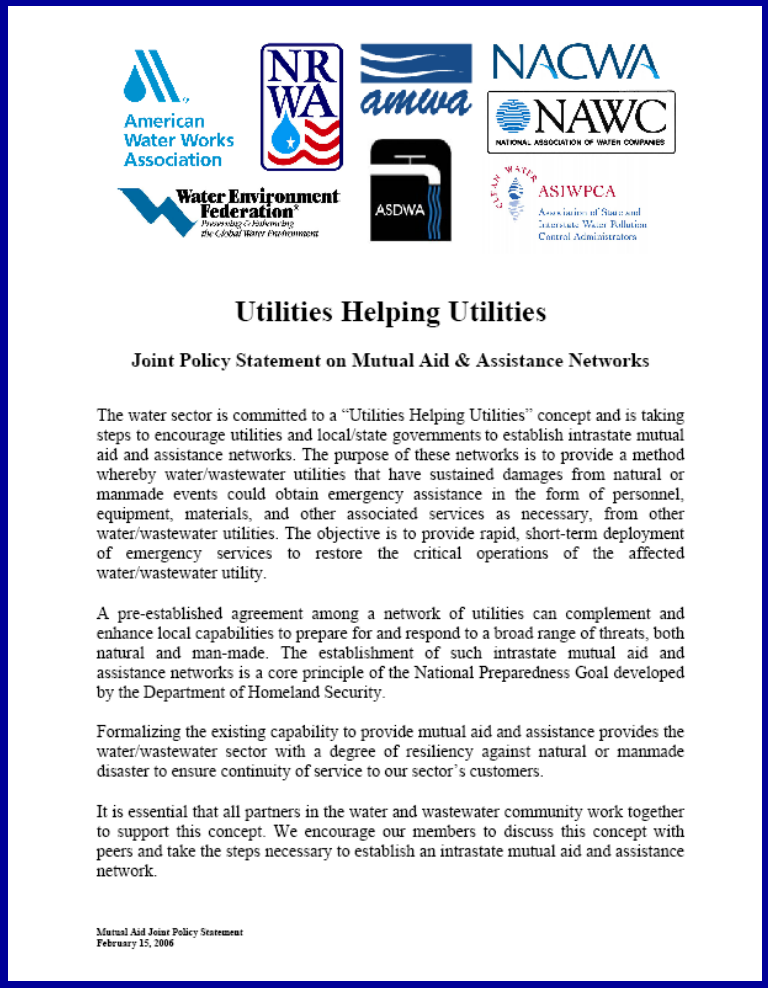
Endorsing WARN?

NATIONAL WARN

- Started in California Early 1990's
  - 1989 Loma Prieta Earthquake
  - 1990 Freeze
  - 1991 East Bay Hills Firestorm
- Past Disasters and Lessons Learned
- Federal Agencies Promote WARN

Water Sector
National Organizations Endorsing WARN

- Joint Policy Statement
  - 8 Major Water Organizations
  - Encourages The Creation Of Intrastate Mutual Aid & Assistance Networks
  - Provides For Greater Water Sector Resiliency Against Natural Or Human Caused Events



Utilities Helping Utilities

Joint Policy Statement on Mutual Aid & Assistance Networks

The water sector is committed to a "Utilities Helping Utilities" concept and is taking steps to encourage utilities and local/state governments to establish intrastate mutual aid and assistance networks. The purpose of these networks is to provide a method whereby water/wastewater utilities that have sustained damages from natural or manmade events could obtain emergency assistance in the form of personnel, equipment, materials, and other associated services as necessary, from other water/wastewater utilities. The objective is to provide rapid, short-term deployment of emergency services to restore the critical operations of the affected water/wastewater utility.

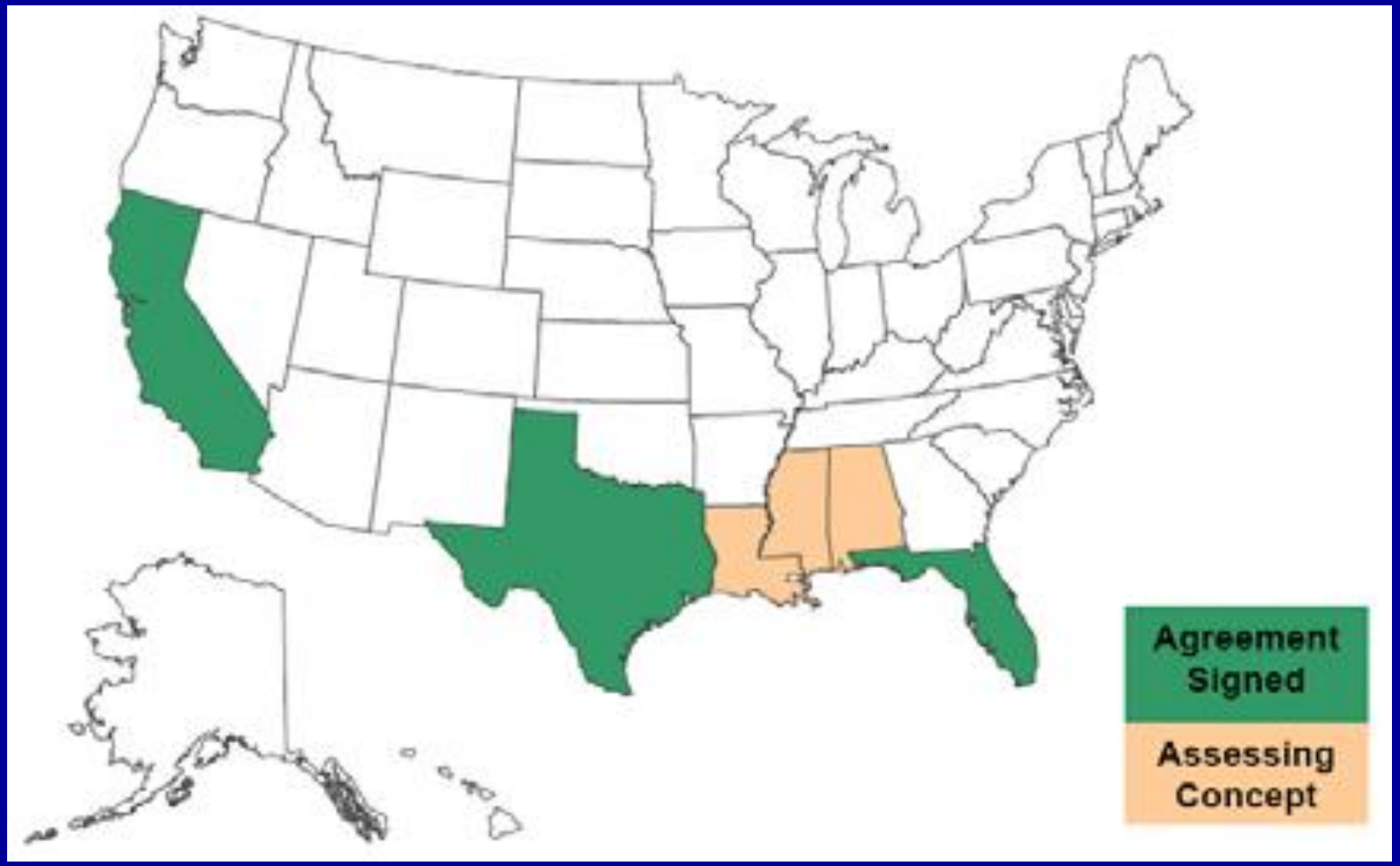
A pre-established agreement among a network of utilities can complement and enhance local capabilities to prepare for and respond to a broad range of threats, both natural and man-made. The establishment of such intrastate mutual aid and assistance networks is a core principle of the National Preparedness Goal developed by the Department of Homeland Security.

Formalizing the existing capability to provide mutual aid and assistance provides the water/wastewater sector with a degree of resiliency against natural or manmade disaster to ensure continuity of service to our sector's customers.

It is essential that all partners in the water and wastewater community work together to support this concept. We encourage our members to discuss this concept with peers and take the steps necessary to establish an intrastate mutual aid and assistance network.

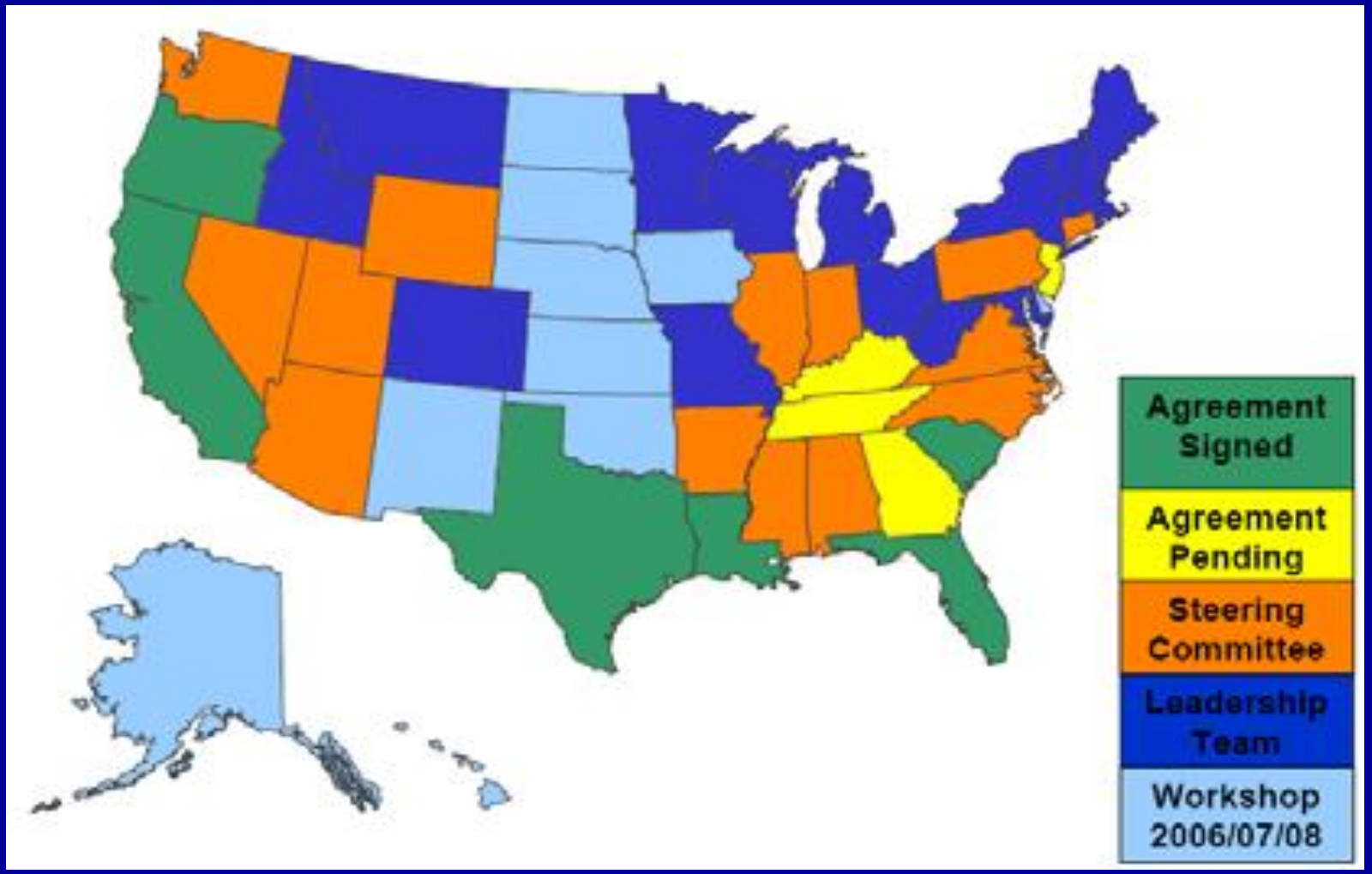
Mutual Aid Joint Policy Statement
February 15, 2006

APRIL 2006



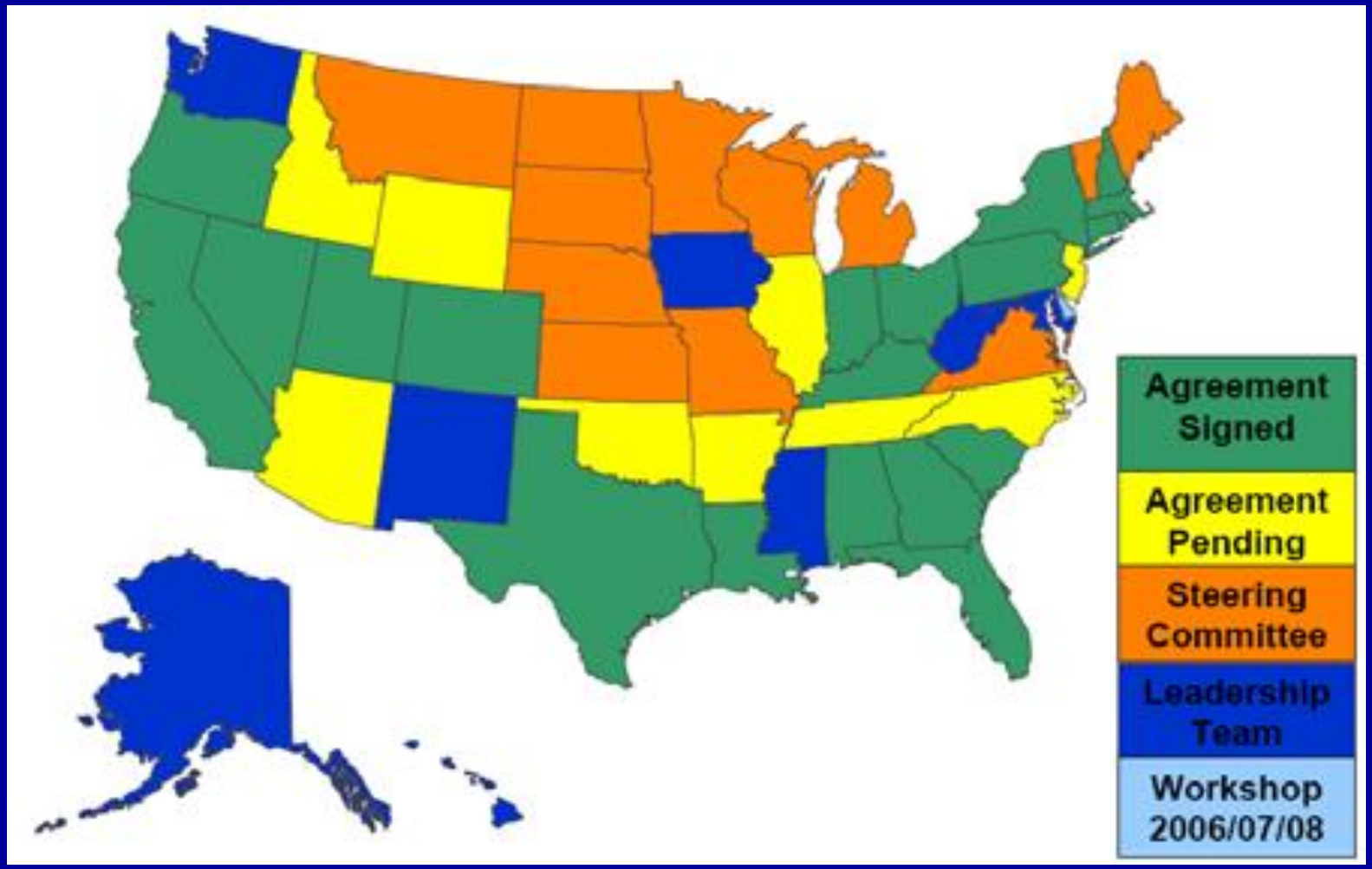
Courtesy of Kevin Morely AWWA

MAY 2007



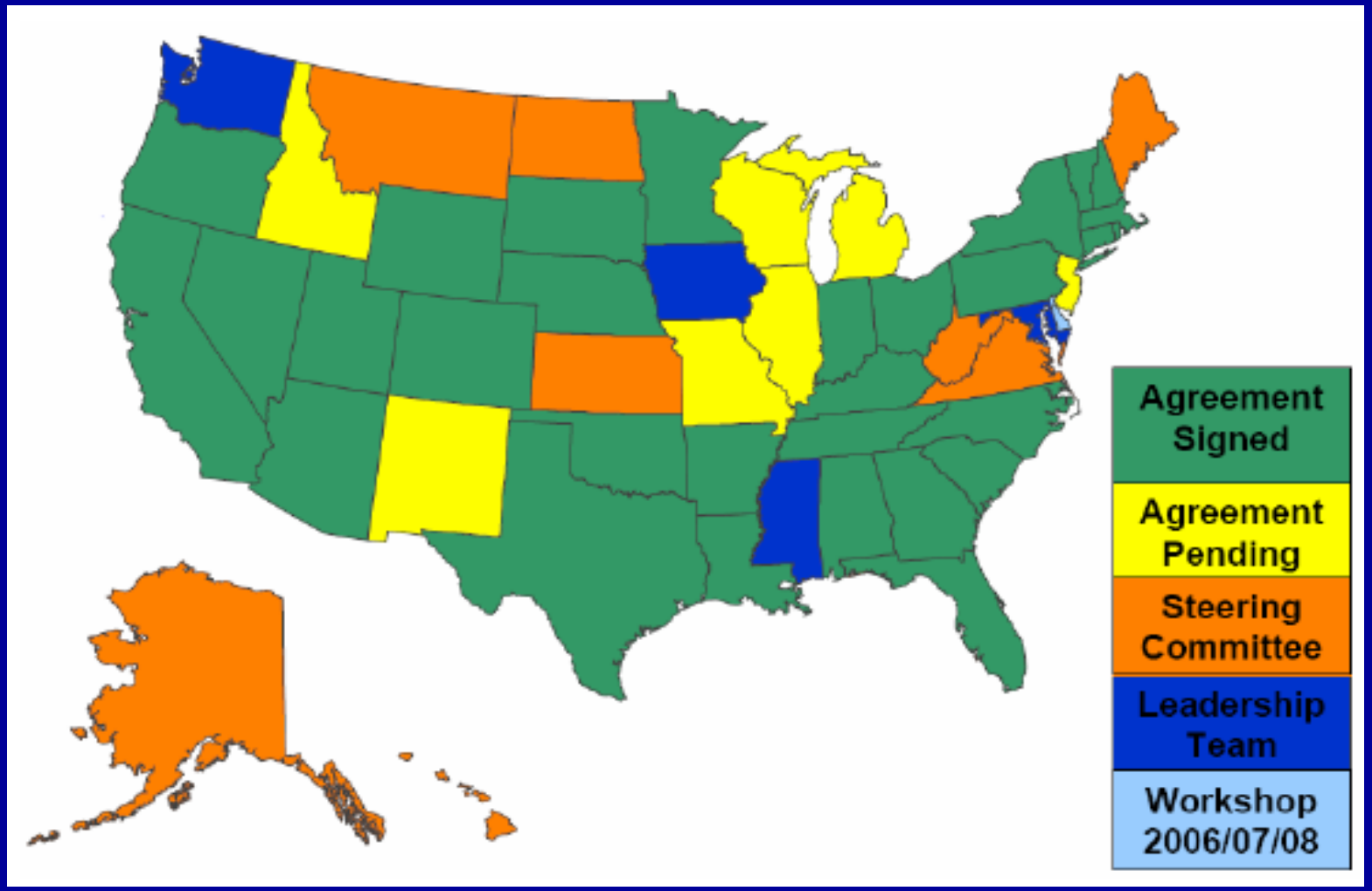
Courtesy of Kevin Morely AWWA

JANUARY 2008



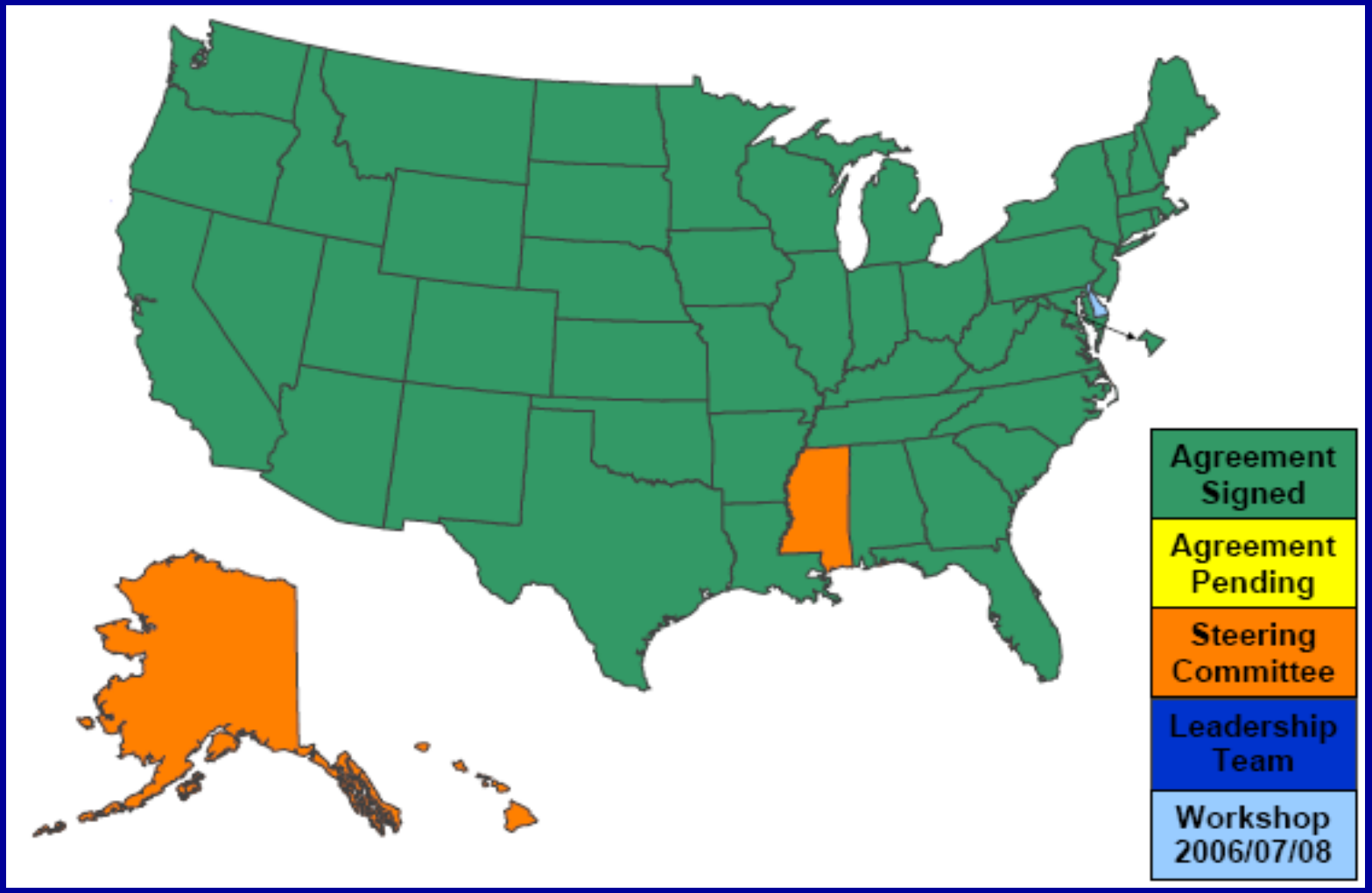
Courtesy of Kevin Morely AWWA

OCTOBER 2008



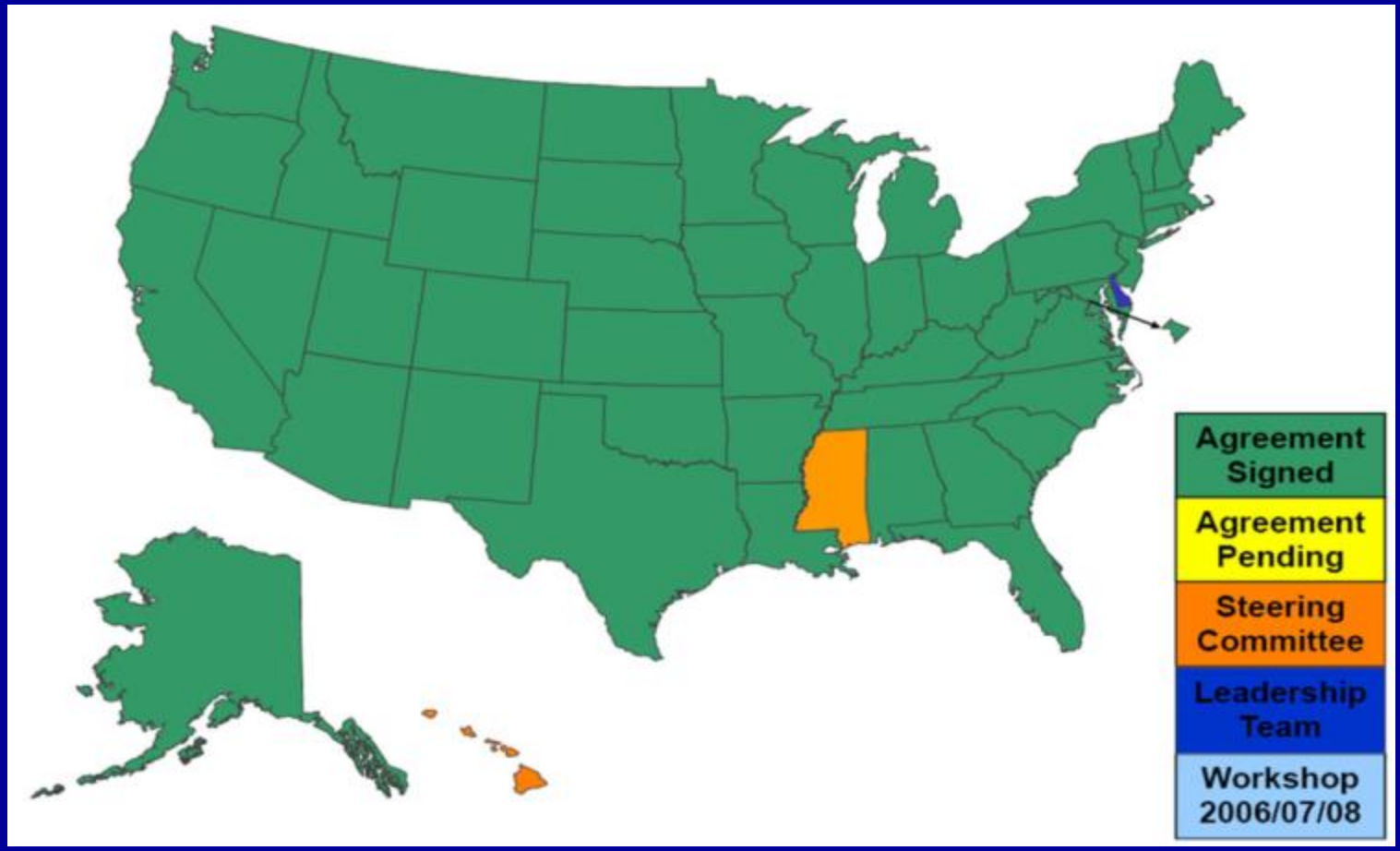
Courtesy of Kevin Morley AWWA

APRIL 2010



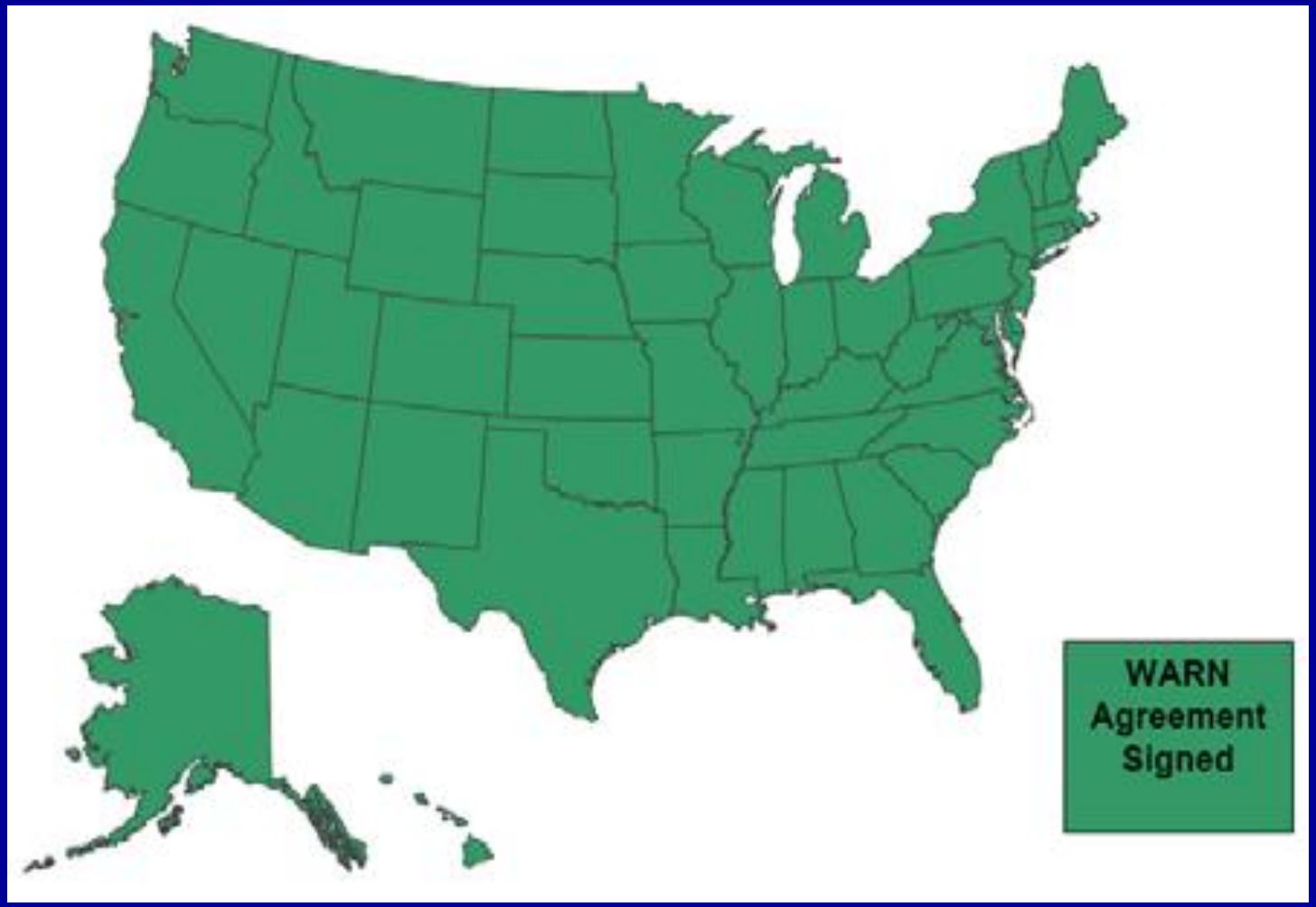
Courtesy of Kevin Morley AWWA

MARCH 2011



Courtesy of Kevin Morley AWWA

"WARN ULTIMATUM"



Courtesy of Kevin Morley AWWA

WARN RESPONSES

- 2005 Hurricane Katrina, Rita, and Wilma FlaWARN
- 2007 Southern California Wildfires (CalWARN)
- 2008 Detroit, Oregon Blizzard (ORWARN)
- 2008 Waterborne Salmonella outbreak, (CoWARN)
- 2008 Hurricane Gustav (LaWARN)
- 2008 Hurricane Ike (TxWARN)
- 2009 Ice Storm (ARWARN, TNWARN, KYWARN)
- 2010 Baja California Earthquake (CalWARN)
- 2011 Hurricane Irene (NCWARN)
- 2012 Foods (MNWARN)
- 2012 Hurricane Sandy

Mutual Aid Agreement

- WARN Mutual Aid Agreement
- The WARN Mutual Aid Agreement is the foundation of the WARN program:
  - Removes obstacles for obtaining assistance
  - Assistance is Voluntary
  - Sets terms and conditions for assistance
  - WARN Structure
  - Requesting Assistance
  - Responding to Requests
  - Reimbursement from Requesting Member
  - Helps with FEMA Reimbursement

AzWARN Members

18 Members

City of Phoenix
City of Peoria
City of Avondale
Prescott Valley
Town of Oro Valley
ADEM
Metro Water District
Pima County
City of Scottsdale
Camp Verde
Town of Buckeye
City of Goodyear
City of Tempe
City of Flagstaff
City of Tucson
Town of Marana
City of Glendale
Town of Gilbert

AzWARN MILESTONES

Arizona WARN Program – March 2008

AzWARN Website – June 2009

Mutual Aid Legislation Passed – July 2009

Various Table Top Exercises and Trainings

AzWARN By-Laws

AzWARN Operational Plan – November 2011

AzWARN WEBSITE

www.azwarn.org Launched in June of 2009

Public Side of Website

- About AzWARN
- News and Events
- Industry Links
- Association and Agency Links
- Membership Information
- Listing of AzWARN Members

Member Side of Website

- Emergency Contact Information of Members
- Listing of Member Resources
- Ability to Post and Respond to Emergencies
- Emergency Email Notifications

Utilities Helping Utilities

AzWARN

Arizona's Water/Wastewater Agency Response Network

About AzWARN
AzWARN Members
News & Events
Member Login
Mutual Aid Agreement
Related Links
Contact Us

What is AzWARN?

AzWARN is a statewide mutual assistance program between water and wastewater utilities. This volunteer based network allows utilities to help one another in times of emergency when the resources of a utility are overwhelmed. The foundation of the network is a signed mutual aid agreement between all participating utilities. The network provides member utility contact information and resource listings for use in emergencies. Click here to learn more about the formation of AzWARN and the member utilities.

Why do we need AzWARN?

Water and wastewater systems provide our communities with a life-sustaining resource that is of vital importance in maintaining public health, sanitation, fire suppression and safety. When water and wastewater services are interrupted for extended periods of time, a community's well-being quickly deteriorates and is nearly impossible to maintain. AzWARN provides critical and timely resources for faster recovery from community disasters by restoring water and wastewater service in the most efficient manner possible. A functioning water and wastewater service is one of the first indications that a community is back in order. With water and wastewater service re-established, health concerns are reduced, livability is increased, and the community can rest assured that recovery is forthcoming.

How does AzWARN help?

AzWARN provides water and wastewater utilities with:

- A signed mutual aid agreement and process for sharing resources among water and wastewater agencies statewide during emergencies.

News & Events

News
[+] New AzWARN Chair and V...
[+] Mutual Aid Legislation...
Events
[+] AzWARN Meeting
More news & events

Contact Us

Steve Shepard
AzWARN Chair
6265 N. La Cañada Drive
Tucson, Arizona 85704
Phone: (520) 877-1133


Utilities Helping Utilities
AZ
WARN

Pipelines & More

Scott Manley

Operations Manager

Pipeline 101

There are no refineries in Arizona so all petroleum product must be produced at CA and TX refineries and then trucked in or transported via pipelines.

Gasoline (all grades)
Diesel
Commercial Jet Fuel
Military Grade Jet Fuel

Pipeline 101

Since the hardest part about building a pipeline is acquiring the right of Easements, Southern Pacific Railroad decided to build on within their already existing easement in 1955.

They also built a communication network in the same easement following the Execunet II decision in 1978 with would free up switchboard use. They laid fiber and one of the big uses was Speedfax lines as well as voice lines. To differentiate between the two they had to come up with a name for the voice…

KINDER MORGAN

Pipeline 101

Which became “Sprint", which is an acronym for Switched PRIvate Network Telecommunications

Atchison, Topeka, Santa Fe Railroad attempted to merge with Southern Pacific Railroad in 1980 and by 1988 was told it was a monopoly in transportation.

Santa Fe kept the pipeline and it was renamed Santa Fe Pacific Pipelines , the railroads were sold off to Rio Grande Industries. For 1.02 Billion.

Later Santa Fe would merge with Burlington Northern Railroad to form Burlington Northern Santa Fe Railroad (BNSF)

Pipeline 101

Rich Kinder leaves Enron and with help of college buddy Bill Morgan, they purchase a small liquids pipeline from Enron for $40 million to form new Company Feb 14, 1997 called Kinder Morgan Energy Partners, a Master Limited Partnership.

October 20th 1997, Kinder Morgan announces it will buy Santa Fe Pacific Pipelines for 1.1 Billion.

KINDER MORGAN

Pipeline 101

2012 Kinder Morgan announces they are to purchase El Paso Natural Gas for $38 Billion.
This will add an additional 43,000 miles of pipeline and make them the largest midstream company in the World.

Since then they have bought or merged to form a company that consists of 75,000 miles of pipe and 180 terminals that reach across 47 states, Canada, and Mexico with over 9000 employees and an enterprise value of $100 Billion.

KINDER MORGAN

Kinder Morgan Today

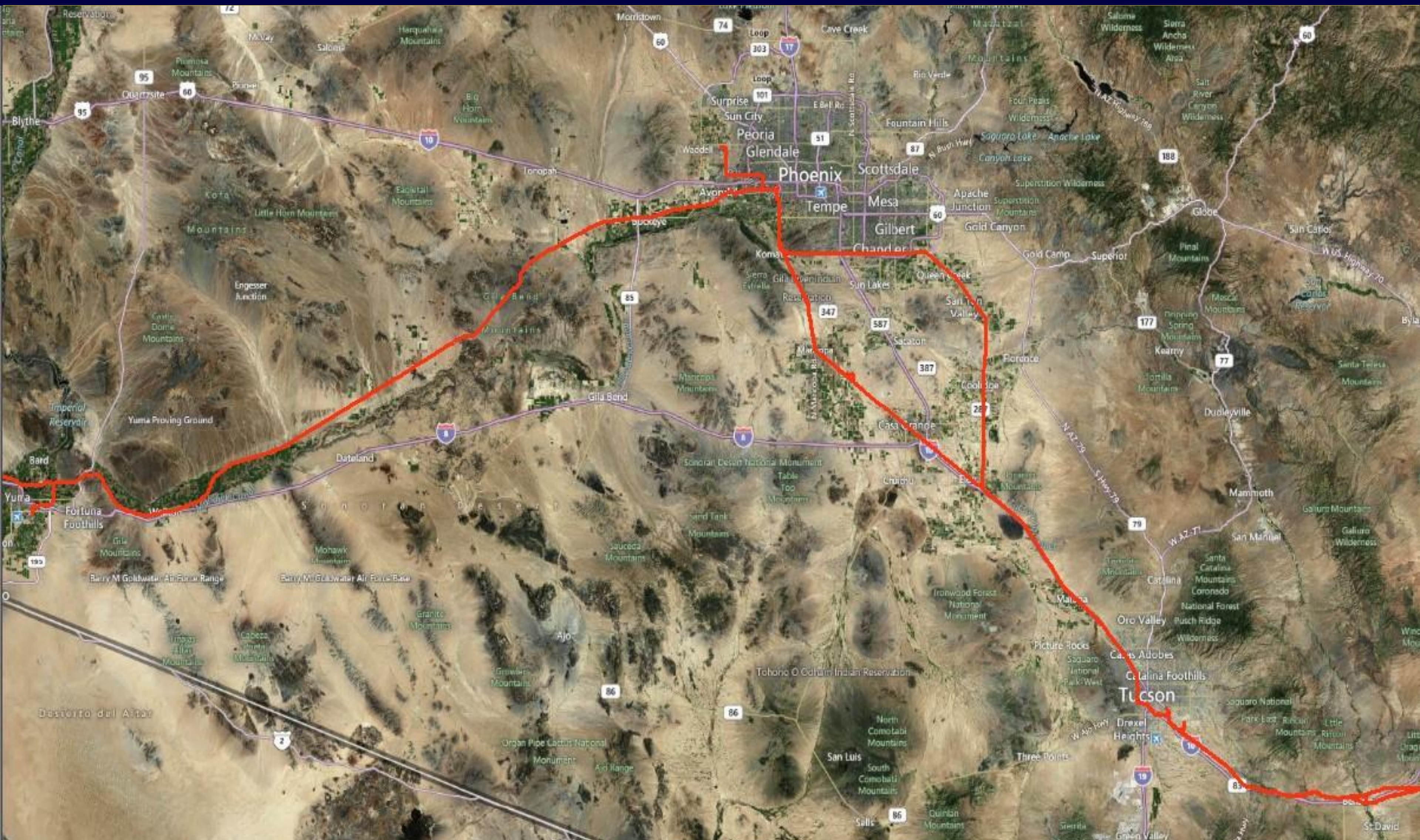
- The largest independent transporter of refined petroleum products
- The largest transporter of natural gas in the U.S.
- The largest independent terminal operator
- The largest transporter and marketer of CO2
- The second largest oil producer in Texas
- The only oilsands pipeline serving Vancouver B.C./Washington state
- The Third Largest Energy company in North America

Current Asset Map

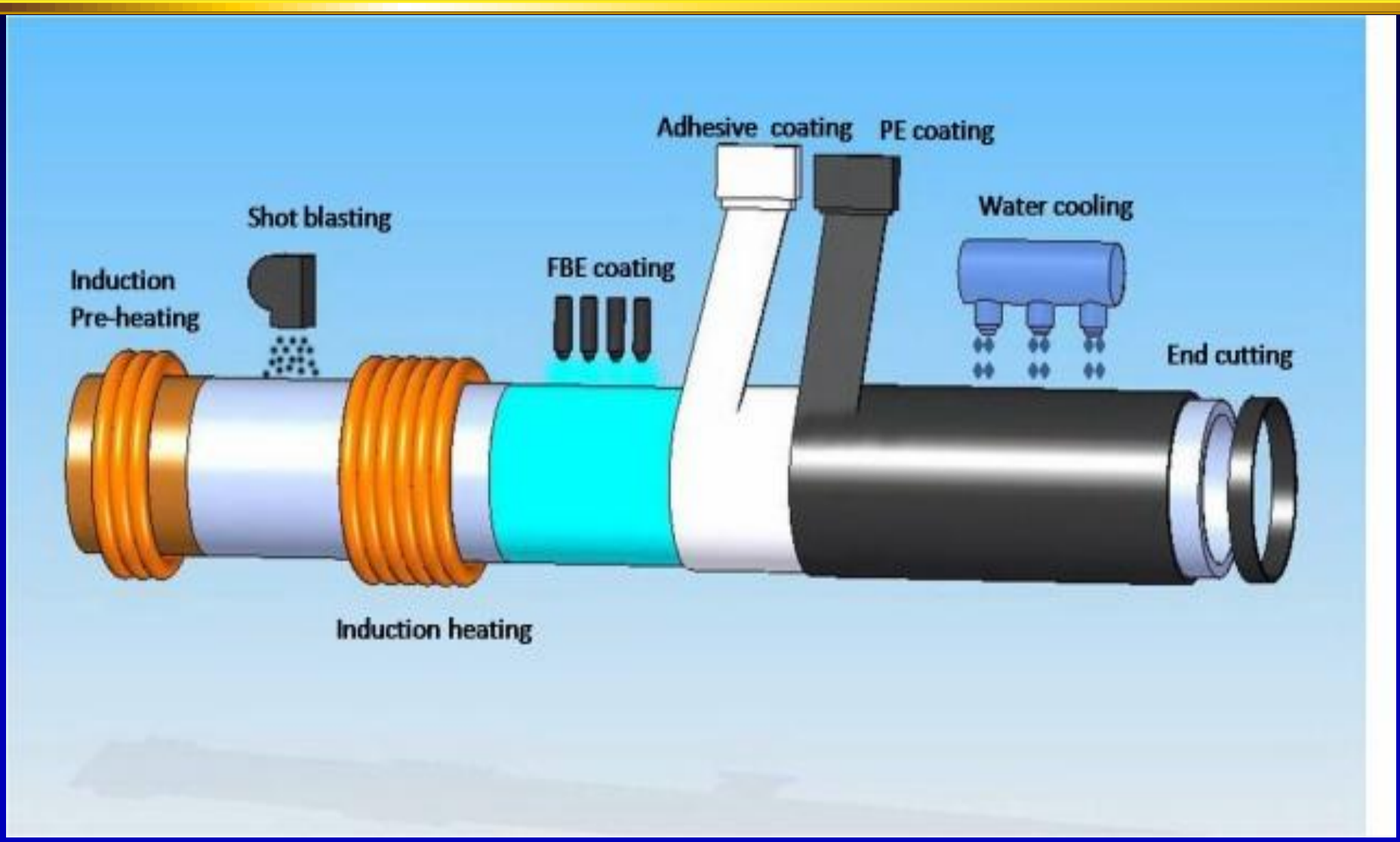
KINDER MORGAN

KINDER MORGAN

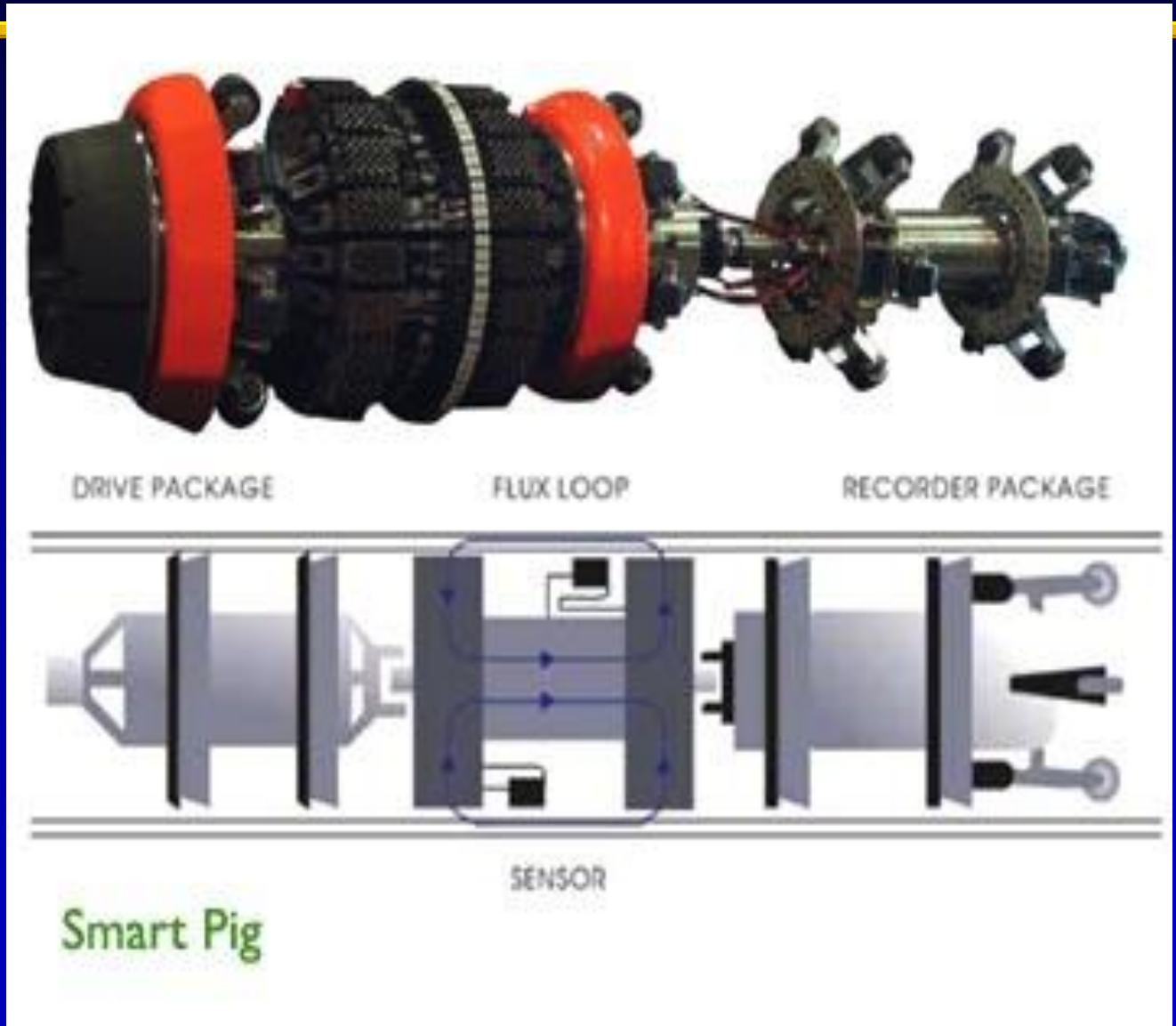
Arizona Petroleum Pipelines



Pipeline Safety



Smart Pigs (Inline Inspection Tool)



Bulk Storage & Loading Facility

KINDER MORGAN

Bulk Loading / Delivery to Retail

KINDER MORGAN

Retail

Sky Harbor Airport

KINDER MORGAN

Luke AFB, Davis-Monthan AFB, Yuma MCAS, & various Airfields

KINDER MORGAN

What happens when the power goes out?

Nothing

KINDER MORGAN

Pipeline Safety

- Pumps, meters, computers, and all safety devices used for controlling and/or monitoring the pipeline require power; therefore we will not run the pipeline without power.

There is still product on site that can be loaded..right?

- Depending on where the product cycle is on each line, you may have 0-3 days reserve on any given product.

KINDER MORGAN

Complexity in Phoenix Terminal

- 7 – Different Base Gasoline products
- 4 - Different Base Diesels
- 2 – Different Jet Fuels
- 10 – Different Additives
- 28 – Different Salable Gasoline blends
- 72 – Active Suppliers
  - Each supplier has a long list of customers, drivers, and trucks
- 184 daily reports

Regulatory Oversight

- ExSTARS report to IRS (Excise Summary Terminal Activity Report)
  - How Every gallon came in compared to how every gallon went out. Meter by Meter
- VARS
  - Every gasoline load that leaves the facility must have the Federal minimum of additive injected.
  - (should have the shipper requested amount of additive.)
- If Diesel is not going to be taxed it must red injected with red dye per the IRS.

Regulatory Oversight

- DHS required drivers of hazardous materials have a background check before obtaining endorsement
- Maricopa County requires that all gasoline in “Area A” be the specially formulated CBG gas (Cleaner Burning Gasoline)
- Every Tanker or trailer that loads fuel within Maricopa County must be certified as Vapor tight and have corresponding Vapor Tightness certificate to prove it and that all vapors from the trailer be collected and processed properly.
- Every Tanker and trailer that loads within the Kinder Morgan Title V permitted facility must have proof of insurance and be properly registered.

Safety

- To obtain proper gas to ethanol and additive injection rate, there are several meters and control valves that open and close which are all computer controlled.
  - They default to a closed position.
- To ensure static electricity during the loading process does not cause fire or explosion, a grounding system is attached to the trailer loaded to bond to the loading rack. This system is controlled via computer and gives each pump permissive to turn on.
  - Because EPA requires that diesel contain less than 15 ppm of sulfur, static dissipating additive is injected to diesel loads to compensate for the increase of static.

Safety

- Each trailer is equipped with an overfill switch which prevents overfilling during the loading process.
- Each loading rack that has an automatic Fire Fighting Foam system is required by Phoenix Fire Code to have a working fire foam system unless Fire Dept is notified and approves or is on site during the loading process.
- Each driver is required to have attended a Kinder Morgan Safety Class and have a current CDL with endorsement for hazardous material.

KINDER MORGAN

The Summary

In order to get gas loaded at the bulk facility without meeting any and all regulatory and company policies, you would need written permission from likely several agencies at each of these levels:

- The City of Phoenix
- Maricopa County
- State of Arizona
- Federal

Then Kinder Morgan Management would want a written plan as to how you are going to do it safely.

Provided it was even possible logistically, by the time you obtained this you would likely have power back.

The Summary

Emergency Vehicles

- If you need to provide emergency vehicles with fuel, then that fuel will need to be obtained from an area with power.
  - Filling of emergency vehicles directly from the bulk facility is not feasible or safe

Supply to General Public

- Even if we found a way to get fuel loaded onto trucks, all service stations would be without power.

The Summary

- Depending on how wide the power outage reached, there are similar Kinder Morgan terminals:
  - Colton CA, 5 hour drive
  - Imperial CA, 4 hour drive
  - Tucson AZ, 2 hour drive
  - El Paso TX, 6 hour drive
- These terminals do not have Maricopa County required fuels.
- There are also smaller non-Kinder Morgan Terminals that may be able to provide emergency relief

KINDER MORGAN

The Summary

My advice,

Protect the Electrical Company assets very, very well!

KINDER MORGAN

Questions?

ADEM

FEMA

Logistics Capability Assessment Tool (LCAT)

Matthew A. Parks
Assistant Director, Logistics
Arizona Division of Emergency Management

LCAT Overview

- A collaborative logistics planning and preparedness tool
- Participants should include state emergency management officials, FEMA logistics, tribal and local emergency managers, NG, and private sector partners
- Used to evaluate their current disaster logistics readiness, identify areas for targeted improvement, and develop a roadmap to further enhance strengths

How It Works

- FEMA facilitated workshop
- 130 survey questions
- **Core Logistics Functional Areas:**
  1) Logistics Planning
  2) Logistics Operations
  3) Distribution Management
  4) Property Management
  5) Organizational Functions

C. LCAT Question Summary

- **Logistics Planning (49 Questions)**
  - The development of a set of disaster logistics plans which consider demand recognition, sourcing, acquisition, transportation, warehousing requirements and distribution/management of goods, people, and equipment during a disaster
    - Plans Development
    - Contingency Planning
    - Distribution Planning
    - Training and Compliance
    - Provider Qualification
    - Procurement Procedures and Protocols
    - Solicitation
    - Existing Contracts

- **Logistics Operations (32 Questions)**
  - The procedural side of state logistics. Log Operations ensures SOPs and processes are followed according to a previously created plan of action
    - Identify Requirements
    - Activate Critical Resource Logistics and Distribution
    - Acquire Resources
    - Common Operating Picture
    - Procurement
    - Transportation

- **Distribution Management (14 Questions)**
  - Everything that has to do with the end-to-end movement of people, commodities and equipment. This includes communications with other stakeholders, ordering, order processing, transportation asset identification and dispatch, delivery receipt and delivery confirmation.
    - Order tracking
    - Transportation Coordination
    - Inbound Shipment Management

- **Organizational Functions (19 Questions)**
  - How disaster logistics fits into your State's overall Emergency Management; considers training, credentialing, and acquisition of logistics resources, general administration, and quality management
    - Reporting Structure and Alignments
    - Credentialing and Cross-Functional Team Structure
    - Logistics Quality Management
    - Logistics Knowledge, Skills, and Training
    - Administrative Burden (State legal constraints)

Measured Levels of Logistics Process Maturity

- **Static** – State has not yet developed and/or implemented a viable strategy within the functional area.
- **Functional** – State has implemented informal plans or processes, but Standard Operating Procedures (SOPs) have not been defined or adopted.
- **Horizontal Integration** – State has developed and implemented formalized, integrated SOPs across the state emergency management organization.
- **External Collaboration** – State has coordinated plans and SOPs with other state, local/tribal, and external partner agencies, organizations, and private vendors.
- **Synchronized** – All local, state, federal, and private partners have fully integrated and synchronized plans, procedures, and operations. All plans and SOPs have been documented and exercised regularly with all participants. State has demonstrated mastery of this capability.

Benefits of LCAT

- Provides a **comprehensive snapshot** of disaster logistics maturity within a state, and among the state's emergency management partners
- Easy-to-use, forum-friendly application creates environment of **group participation and teaming** amongst public and private partners
- Provides capability baseline and a tracking mechanism for historical scores, and trend analysis
- A **comprehensive snapshot** of the current state of disaster logistics maturity within a state, and among the state's emergency management partners
- Standardized **logistical process controls** and best practices, education and training
- Inherently **solves logistics problems** by identifying areas of focus and providing benchmarks for operational and planning excellence
- A **collaborative forum setting** that includes both public and private stakeholders from across the emergency management supply chain
- A standard methodology for FEMA/DHS to measure state preparedness levels for the purpose of **administering grant funding to increase state readiness**

Logistics Planning

Plans Development | Contingency Planning | Distribution Planning | Training and Compliance | Provider Qualification | Procurement Procedures & Protocols | Solicitation | Existing Contracts

Q1 of 17: Has your State identified the most likely catastrophic disaster scenario and impacts?

- **Synchronized** — *State has coordinated catastrophic disaster scenario and impacts with FEMA Region to ensure coordinated effort to address scenario and impacts through proper planning*
- *External Collaboration* — State has included local, tribal inputs as well as private vendor partners and other government and non-governmental agencies
- *Horizontal Integration* — State has included inputs from State agencies for catastrophic scenario and impacts
- *Functional* — State has identified most likely catastrophic disaster scenario
- *Static*
- *N/A*

Comments

State Hazard Mitigation Plan 2010.

Update Comment | Next

REF: NPG Sep 07 pg 2, 21; NIMS December 2008 pg 35; NRF Jan 08 pg 42; TCL Sep 07 pg 51

MA Logistics Capability Assessment
Help
FEMA
sment
Results
Graphs
Participants
Assessment (97 / 130)
Logistics Planning (4
Logistics Operations
Distribution Manager
Organizational Functi
Property Managemer
Logistics Operations
Identify Requirements
Activate Critical Resource Logistics and Distribution
Acquire Resources
Common Operating Picture
Procurement
Transportation
Q1 of 3: Does your State have documented standard operating procedures for state staging area operations?
Synchronized
External Collaboration
Horizontal Integration
Functional
Static
N/A
State staging area polices and procedures part of ongoing process improvement effort and done in conjunction with FEMA Region/U.S. Army Corps of Engineers (USACE)
State has state staging area policies and procedures developed in cooperation with partners (e.g. National Guard)
Written policies and procedures for state staging area operations
Comments
State staging areas identified in catastrophic incident plan. LSA plans in draft.
Update Comment
Next
REF: TCL Sep 07 Res.B1d 4.2 and 6.3.4; EMAP Standard, pg 9-10, Sept 2007
Special Assessment: SHSGP Critical Emergency Supplies Grant

FEMA Logistics Capability Assessment

File Help

FEMA

Assessment | Results | Graphs | Participants

Logistics Planning

Plans Development | Contingency Planning | Distribution Planning | Training and Compliance | Provider Qualification | Procurement Procedures & Protocols | Solicitation | Existing Contracts

Q13 of 17: Do your State's logistics plans address management of donated goods?

Synchronized	*Logistics plans describe the detailed process used to manage unsolicited donations at all levels and include the use of the National AidMatrix system; State adheres to resource management and logistics standard 4.8.6 of the Emergency Management Accreditation Program*
External Collaboration	
Horizontal Integration	Plans for handing donated goods include coordination with local and tribal managers as well as private vendors and non-governmental partners
Functional	
Static	Plans include minimum steps to manage donations at the State level
N/A	Plans identify some means of dealing with unsolicited donations

Comments

State Emergency Response and Recovery Plan, Dobnations Management Annex; Aidmatrix/National Donations Management System; Partnership with The Salvation Army.

Previous | Update Comment | Next

REF: From CPG 101 March 2009 pg C-20; EMAP Standard, pg 9-10, Sept 2007

start | Search Desktop | 1:25 PM

FEMA Logistics Capability Assessment

File Help

FEMA

Assessment | Results | Graphs | Participants

- Assessment (97 / 130)
  - Logistics Planning (4!
  - Logistics Operations
  - Distribution Manager
  - Organizational Functi
  - Property Managemer

Logistics Operations

Identify Requirements | Activate Critical Resource Logistics and Distribution | Acquire Resources | Common Operating Picture | Procurement | Transportation

Q2 of 11: Does your State employ standard typing measures to identify required logistics resources (e.g. material handling equipment) by capability?

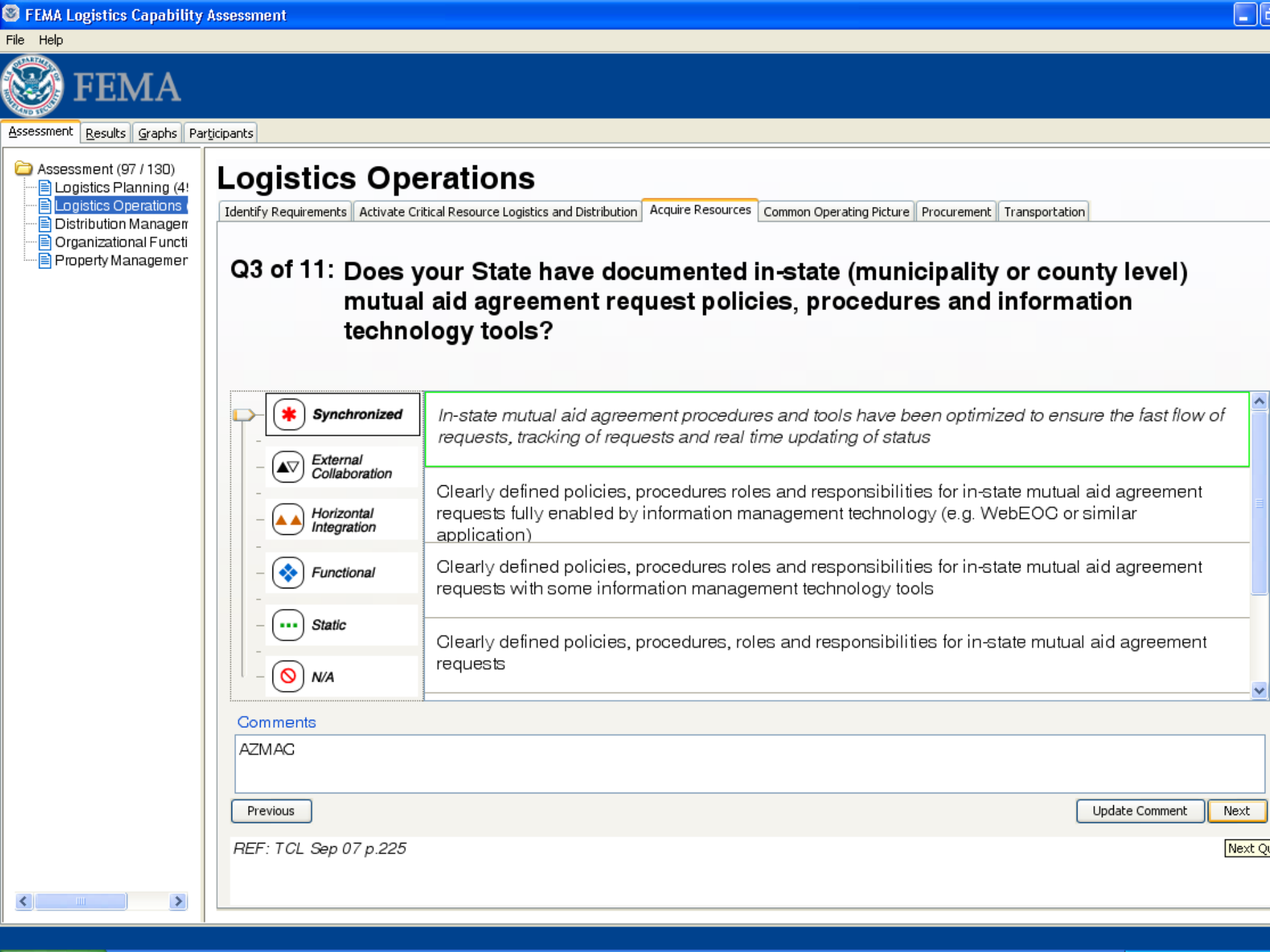
Synchronized	Typing facilitates streamlined request procedures (e.g. "force packages" to man PODs or state staging areas)
External Collaboration	Standardized typing and identifying of all logistics resources required
Horizontal Integration	*Standardized typing or identifying by capability of critical resources only*
Functional	
Static	Some typing by capability of critical resources but not standardized
N/A	

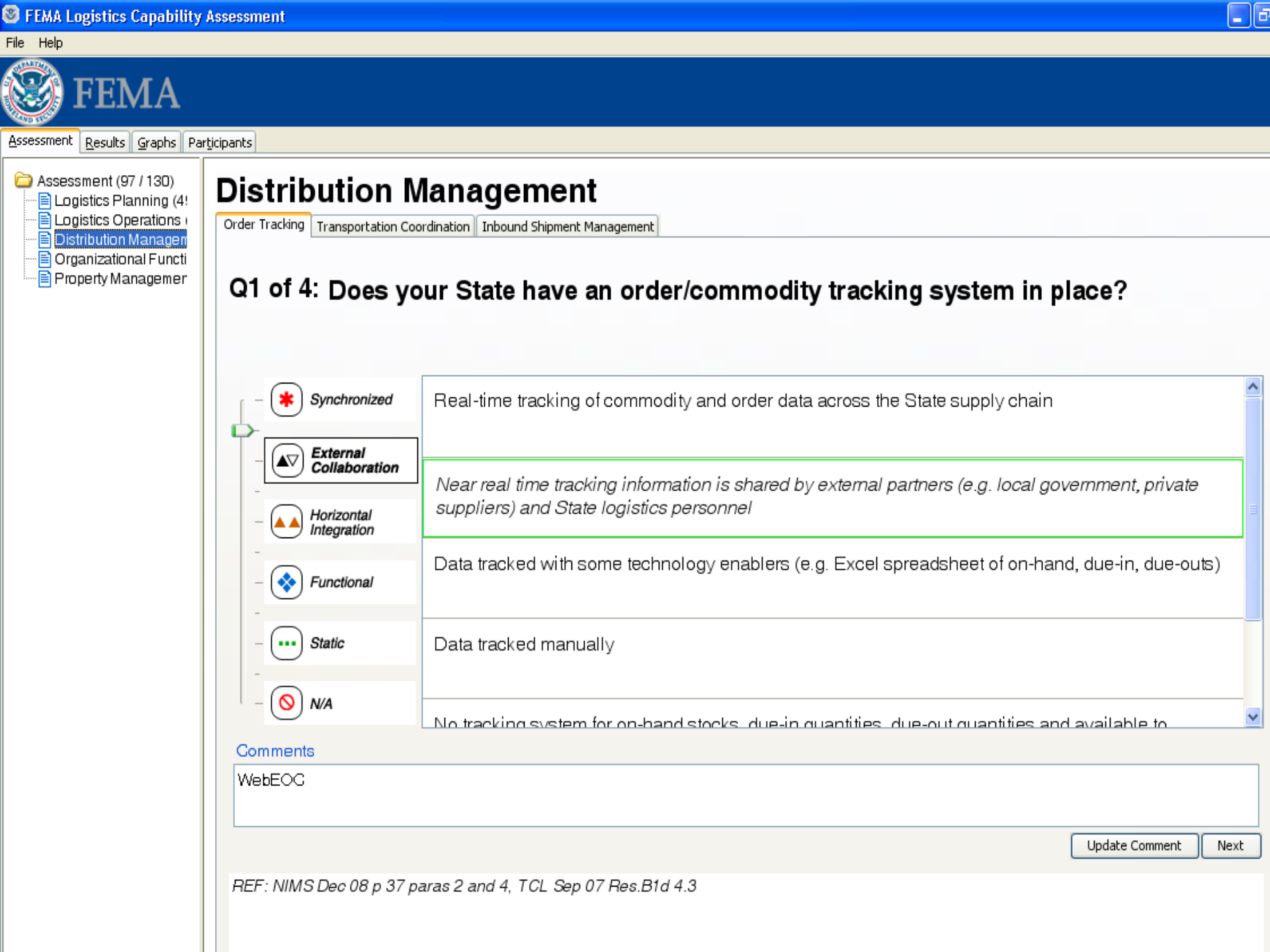
Comments

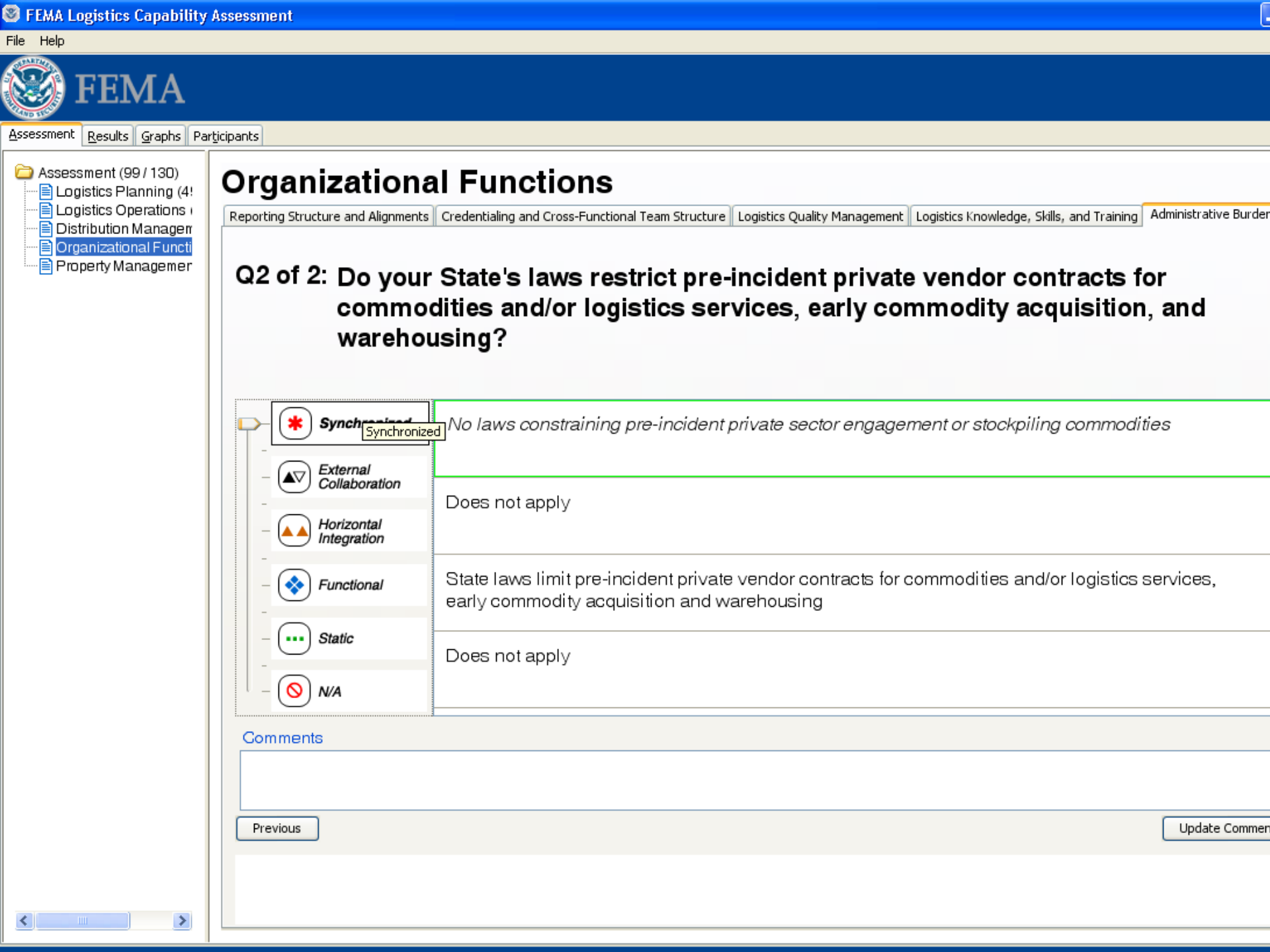
Previous | Update Comment | Next

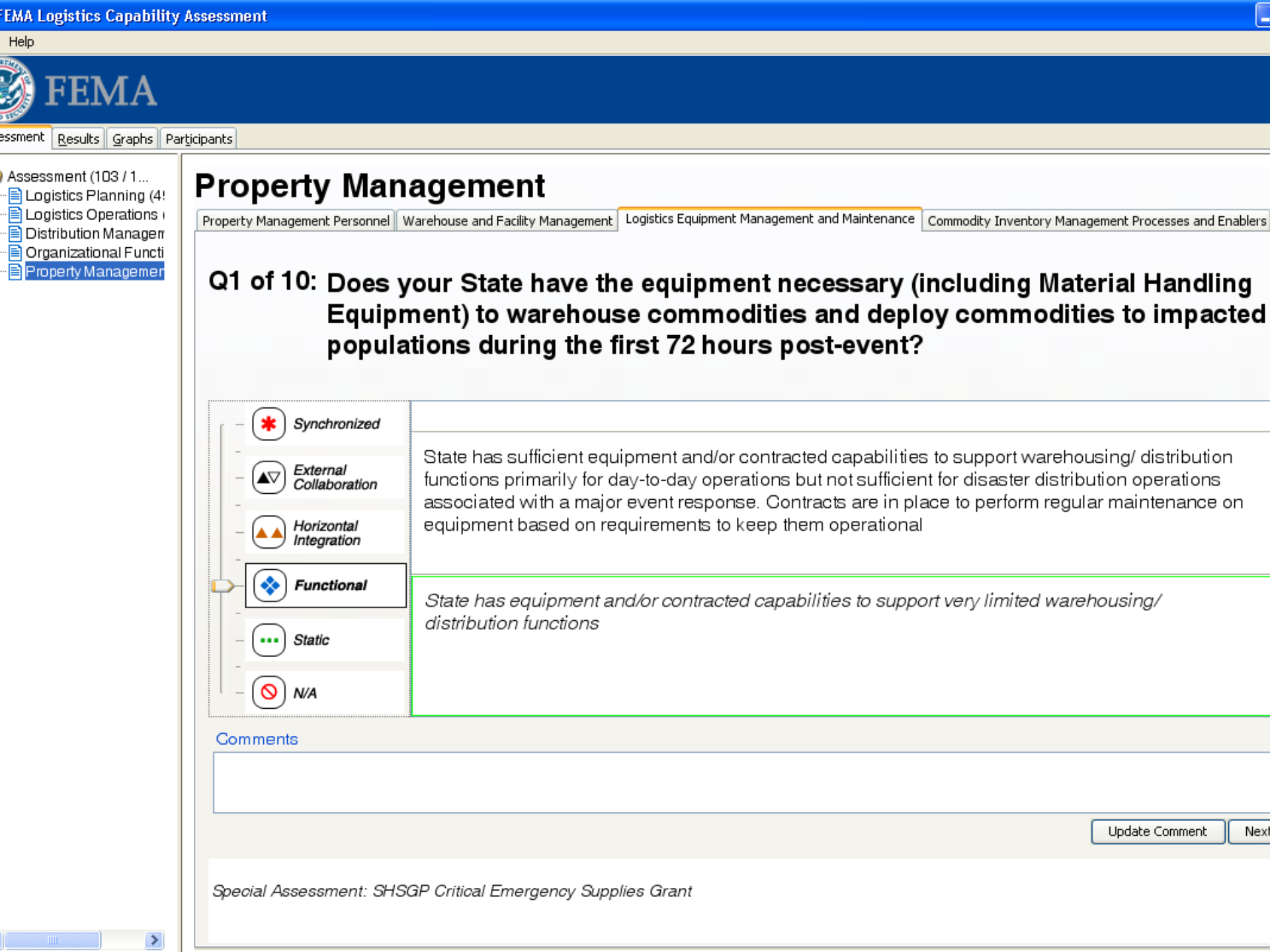
REF: NIMS Dec 08 p41-42, para b. TCL Sep 07 Res.B1d 5.2

start | Search Desktop | 1:40 PM


FEMA Logistics Capability Assessment
File Help
FEMA
Assessment Results Graphs Participants
Assessment (97 / 130)
Logistics Planning (4
Logistics Operations
Distribution Managem
Organizational Functi
Property Managemer
Logistics Operations
Identify Requirements
Activate Critical Resource Logistics and Distribution
Acquire Resources
Common Operating Picture
Procurement
Transportation
Q3 of 11: Does your State have documented in-state (municipality or county level) mutual aid agreement request policies, procedures and information technology tools?
Synchronized
External Collaboration
Horizontal Integration
Functional
Static
N/A
In-state mutual aid agreement procedures and tools have been optimized to ensure the fast flow of requests, tracking of requests and real time updating of status
Clearly defined policies, procedures roles and responsibilities for in-state mutual aid agreement requests fully enabled by information management technology (e.g. WebEOC or similar application)
Clearly defined policies, procedures roles and responsibilities for in-state mutual aid agreement requests with some information management technology tools
Clearly defined policies, procedures, roles and responsibilities for in-state mutual aid agreement requests
Comments
AZMAC
Previous
Update Comment
Next
REF: TCL Sep 07 p.225
Next Qu


FEMA Logistics Capability Assessment
File Help
FEMA
Assessment Results Graphs Participants
Assessment (97 / 130)
Logistics Planning (4
Logistics Operations
Distribution Managem
Organizational Functi
Property Managemer
Distribution Management
Order Tracking
Transportation Coordination
Inbound Shipment Management
Q1 of 4: Does your State have an order/commodity tracking system in place?
Synchronized
External Collaboration
Horizontal Integration
Functional
Static
N/A
Real-time tracking of commodity and order data across the State supply chain
Near real time tracking information is shared by external partners (e.g. local government, private suppliers) and State logistics personnel
Data tracked with some technology enablers (e.g. Excel spreadsheet of on-hand, due-in, due-outs)
Data tracked manually
No tracking system for on-hand stocks, due-in quantities, due-out quantities and available to
Comments
WebEOC
Update Comment
Next
REF: NIMS Dec 08 p 37 paras 2 and 4, TCL Sep 07 Res.B1d 4.3


FEMA Logistics Capability Assessment
File Help
FEMA
Assessment Results Graphs Participants
Assessment (99 / 130)
Logistics Planning (4
Logistics Operations
Distribution Manager
Organizational Functi
Property Managemer
Organizational Functions
Reporting Structure and Alignments
Credentialing and Cross-Functional Team Structure
Logistics Quality Management
Logistics Knowledge, Skills, and Training
Administrative Burden
Q2 of 2: Do your State's laws restrict pre-incident private vendor contracts for commodities and/or logistics services, early commodity acquisition, and warehousing?
Synchronized
External Collaboration
Horizontal Integration
Functional
Static
N/A
No laws constraining pre-incident private sector engagement or stockpiling commodities
Does not apply
State laws limit pre-incident private vendor contracts for commodities and/or logistics services, early commodity acquisition and warehousing
Does not apply
Comments
Previous
Update Commen


FEMA Logistics Capability Assessment
Help
FEMA
Results
Graphs
Participants
Assessment (103 / 1...
Logistics Planning (4
Logistics Operations
Distribution Manager
Organizational Functi
Property Managemer
Property Management
Property Management Personnel
Warehouse and Facility Management
Logistics Equipment Management and Maintenance
Commodity Inventory Management Processes and Enablers
Q1 of 10: Does your State have the equipment necessary (including Material Handling Equipment) to warehouse commodities and deploy commodities to impacted populations during the first 72 hours post-event?
Synchronized
External Collaboration
Horizontal Integration
Functional
Static
N/A
State has sufficient equipment and/or contracted capabilities to support warehousing/ distribution functions primarily for day-to-day operations but not sufficient for disaster distribution operations associated with a major event response. Contracts are in place to perform regular maintenance on equipment based on requirements to keep them operational
State has equipment and/or contracted capabilities to support very limited warehousing/ distribution functions
Comments
Update Comment
Special Assessment: SHSGP Critical Emergency Supplies Grant

FEMA Logistics Capability Assessment

Help

FEMA

essment | Results | Graphs | Participants

Assessment (103 / 1...
Logistics Planning (4
Logistics Operations
Distribution Manager
Organizational Functi
Property Managemer

Property Management

Property Management Personnel | Warehouse and Facility Management | Logistics Equipment Management and Maintenance | Commodity Inventory Management Processes and Enablers

Q1 of 10: Does your State have the equipment necessary (including Material Handling Equipment) to warehouse commodities and deploy commodities to impacted populations during the first 72 hours post-event?

- Synchronized
- External Collaboration
- Horizontal Integration
- **Functional**
- Static
- N/A

State has sufficient equipment and/or contracted capabilities to support warehousing/ distribution functions primarily for day-to-day operations but not sufficient for disaster distribution operations associated with a major event response. Contracts are in place to perform regular maintenance on equipment based on requirements to keep them operational

State has equipment and/or contracted capabilities to support very limited warehousing/ distribution functions

Comments

Update Comment | Next

This is where we think we are at.

Special Assessment: SHSGP Critical Emergency Supplies Grant

FEMA Logistics Capability Assessment

File Help

FEMA

Assessment | Results | Graphs | Participants

Assessment (130 / 1...
- Logistics Planning (
- Logistics Operations
- Distribution Manage
- Organizational Func
- Property Manageme

Property Management

Property Management Personnel | Warehouse and Facility Management | Logistics Equipment Management and Maintenance | Commodity Inventory Management Processes and Enablers

Q1 of 10: Does your State have the equipment necessary (including Material Handling Equipment) to warehouse commodities and deploy commodities to impacted populations during the first 72 hours post-event?

- Synchronized
- External Collaboration
- Horizontal Integration
- **Functional**
- Static
- N/A

State has sufficient equipment and/or contracted capabilities to support warehousing/ distribution functions. Contracts are in place to perform regular maintenance on equipment based on requirements to keep them operational. Capabilities are scalable and can support likely disaster scenarios. Capabilities have been shared with FEMA Region. There are no known limiting factors

State has sufficie equipment and/or contracted capabilities to support warehousing/ distribution functions for all els of event/response. Contracts are in place to perform regular maintenance on equipment bas on requirements to keep them operational. Any limitations have been addressed with FEMA R on

Comments

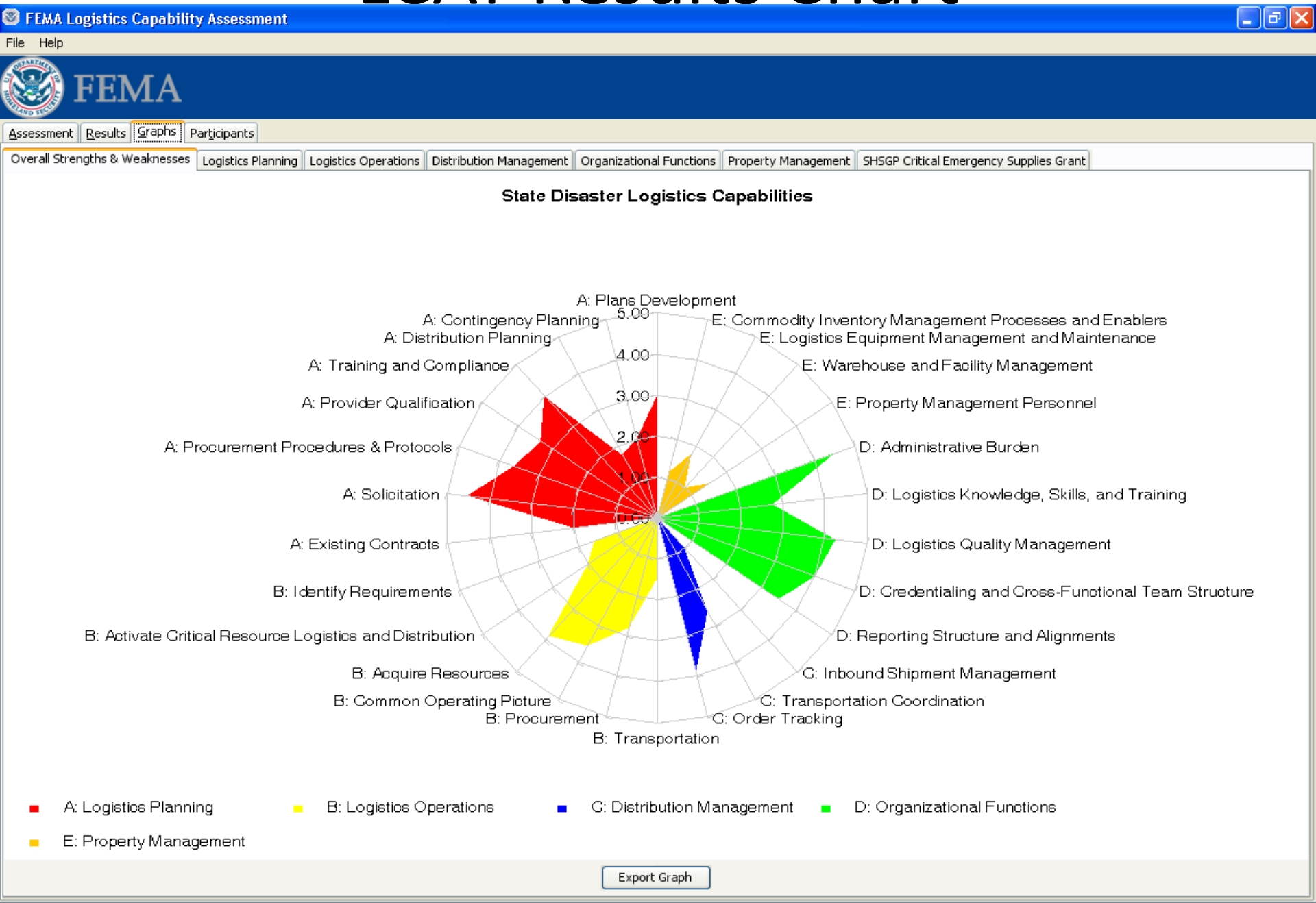
This is where we would like to be.

Update Comment | Next

Special Assessment: SHSGP Critical Emergency Supplies Grant

start | Search Desktop | 2:19 PM

LCAT Results Chart



LCAT Manual

- http://www.dem.azdema.gov/logistics/lcat.html

LCAT Workshop

- February 20, 2013, 1:00 PM-5:00 PM
- February 21, 2013, 8:00 AM-5:00PM
- PPMR, Allen Readiness Center, Bldg #5260
- RSVP

Matthew.Parks@azdema.gov

602-464-6510

AZ DEMA

FEMA

Arizona All-Hazards CONOPS Development

January 31, 2013

Goal:

Using an All-Hazards approach:

Develop an integrated Concept of Operations (CONOPS) for joint Federal-State response to, and recovery from, a catastrophic incident in the State of Arizona.

Why Develop a CONOPS?

The joint CONOPS purpose is to:
Plan for any catastrophic incident or hazard- regardless of risk or frequency.
Using NIMS and ICS tenets to: Define the roles and responsibilities of Federal and State officials, private sector organizations, and volunteer agencies that support the CONOPS in order to eliminate overlap and duplication of effort through:

- Unity of Effort, Unity of Command
- Common Language, Terminology
- Management by Objective
- Comprehensive Resource Management

CONOPS- Elements

1. Situation
   - Purpose
   - Background and Scope
   - Scenario – composite based on THIRA
   - Planning Assumptions and Critical Considerations
2. Mission
   - Priorities by Core Capability*
3. Execution
   - Concept of Operations
   - Organization
   - Roles and Responsibilities
   - Key Tasks
4. Coordination
   - Logistics Architecture
   - Communitcation

CONOPS Development Process

The CONOPS is a synthesis of the AZ Base Plan and R IX All Hazards Plan

- Focus will be on ensuring joint processes are articulated
- R IX can provide basic draft, with AZ review, input and coordination of State-specific elements
- Build upon State-wide Ex Planning efforts as an efficiency, and utilize virtual collaboration.

Timeline- FY13

Dec 2012:	Form the Planning Team
Jan-Feb 2013:	Situation , Assumptions, Information Analysis Brief
March-April 2013:	Develop COAs, Decision Brief
April-May 2013:	Appendices, and Draft complete
June-July 2013:	Stakeholder Review, Edit/Update, and Approval
* Nov 2013:	AZ State-wide Exercise

Core Capabilities- Response

Infrastructure Systems

Public Information and Warning

Mass Care Services

Public Health and Medical Services

Mass Search and Rescue Operations

Public and Private Services and Resources

Environmental Response/Health and Safety

Critical Transportation

On-Scene Security and Protection

Fatality Management Services

Broad Impacts

- **Electricity**
- **Water**
- **Trash and Sewer**
- **Natural Gas**
- **Gasoline**
- **Transportation**
- **Health and Safety (to include 1st Responders**
- **Pharmacies**
- **Pharmaceuticals**
- **Hospitals /Hospital Supplies**
- **Manufacturing**
- Communications
  - Internet
  - Emergency Services
  - Utility Industry Communications
  - Public and Private Sector Communications
- Banking
- Grocery Stores
- Retail Stores
- Nitrogen Gaseous Pipeline
- Gas and Chemicals
- Postal and Shipping

Capability Estimates

	Capability:	Mass Search and Rescue Operations	
	Target:	During the first 72 hours of an incident, conduct typical and atypical Search and Rescue operations for 1,000 residences	
	Primary	Columbia Emergency Management Agency (CEMA), SAR Advisory Board	
	Step 1 Required Resources	Step 2 Available Resources	Step 3
	Emergency Operations Plan	2010 Emergency Operations Plan	
	Evacuation Annex	2007 Evacuation Annex	
	Columbia UASI SAR Annex	2011 Columbia UASI SAR Annex	
	Columbia UASI (organizational body)	Columbia UASI	
	State SAR Advisory Board	State SAR Advisory Board	
	3 NIMS Type IV Canine SAR Teams1	1 NIMS Type IV Canine SAR Teams	Major
	1 NIMS Type II Collapse SAR Team2	1 NIMS Type II Collapse SAR Team	
	1 Type II US&R Task Force	Most components of Type II US&R Task Force in place	Minor
	1 fixed-wing airborne reconnaissance	1 Type II fixed-wing aircraft	
	2 helicopters	2 helicopters (1 of which is available via MOU)	

Capability Estimates

Rob Clyburn
FEMA Region IX
robert.clyburn@fema.dhs.gov
Ph: 510-504-3617

Mariano Gonzalez, Jr.
ADEM
Preparedness Section (PT&E)
SERRP Coordinator
Ofc: 602.464.6327
Cell: 602.402.7350
E-mail: mariano.gonzalez@azdema.gov

DISCUSSION

Supporting Exercise Events

- February 20th - Consequence Analysis Workshop
- March 27th - Access and Functional Needs Tabletop
- April TBD - Federal Partners Response
- May TBD – Patient Movement Workshop
- June TBD
- July TBD
- August TBD
- September – Executive TTX, date and location TBD

CONSEQUENCES & CASCADING EFFECTS OF AN EXTENDED POWER OUTAGE

Emergency Support Functions			Consequences / Cascading Effects of Extended Power Outage	Required Capabilities & Resources	Source of Resources	
Private Sectors			(I)Immediate, (N) Near-Term, (L) Long-Term		Primary	Secondary
1.1	Transportation & Infrastructure	1.1.1				
		1.1.2				
		1.1.3				
	1.2 Transportation	1.2.1				
		1.2.2				
	1.3 Postal & Shipping	1.3.1				
		1.3.2				
2.1	Communications	2.1.1				
		2.1.2				
		2.1.3				
	2.2 Telecommunications	2.2.1				
		2.2.2				
	2.3 Information Technology	2.3.1				
		2.3.2				

Closing Comments

- Questions
- Participant Feedback Forms
- Thank-you for attending